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A CULTURAL RESOURCES INVENTORY OF THE PROPOSED DRY IMPOUNDMENT --ETC(U)

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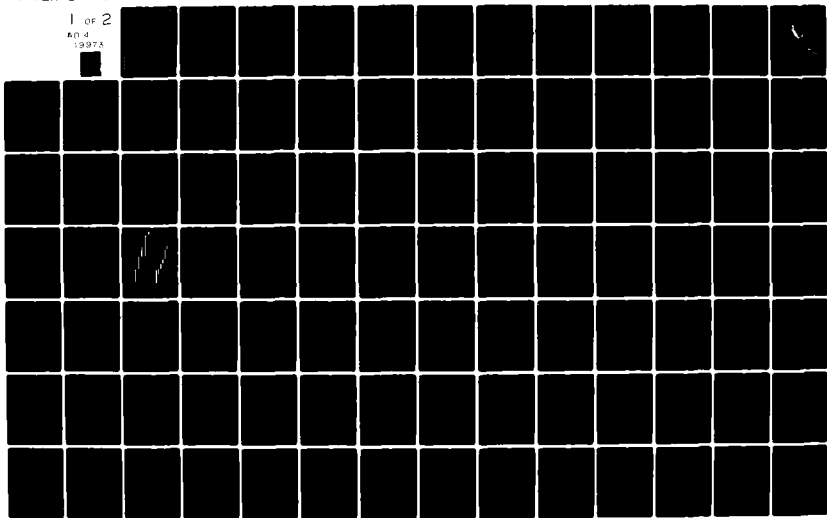
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Final Report

A CULTURAL RESOURCES INVENTORY OF THE PROPOSED
DRY IMPOUNDMENT AREA NORTH OF ROSS BARNETT
RESERVOIR AND FIELD RECONNAISSANCE OF THE
PEARL RIVER, BETWEEN RIVER MILES 278 AND 301,
IN THE VICINITY OF JACKSON, MISSISSIPPI

Under Contract No. DACW01-81-C-0066-P00002

Prepared for:

U. S. Corps of Engineers
Mobile District
P. O. Box 2288
Mobile, Alabama 36628

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Prepared by:

Heartfield, Price and Greene, Inc.

August, 1982

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The study revealed that almost no cultural resources research had been conducted within the dry impoundment area. Eight archeological sites had been recorded along the margins of the dry impoundment area. No information could be found concerning three "Indian mounds" depicted on U.S.G.S. quad maps. Approximately 560 acres within the two proposed dam alignments and their associated spillways were surveyed. Nine locations of cultural resources (1 prehistoric site, 6 structures and 4 historic sites) were located. All are described.

Approximately 837 acres were surveyed between River Miles 278 and 301. Five previously recorded sites were visited; two previously recorded sites could not be reached because of flooding. Six new cultural resource locations (5 structures and a historic site) were recorded. All are described.

Recommendations and future goals for the study area are presented. Additionally, the references utilized in this study are annotated.

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Final Report

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ABSTRACT

Heartfield, Price and Greene, Inc., of Monroe, Louisiana was contracted by the United States Army Corps of Engineers, Mobile District to: a) conduct a cultural resources inventory of proposed dam and dry impoundment areas north of Ross Barnett Reservoir and, b) to conduct a cultural resources reconnaissance of the Pearl River, between River Mile 278 and 301, in the vicinity of Jackson, Mississippi. This report has collected and synthesized environmental, archeological, ethnographic, and historic data pertaining to the study area.

The study revealed that almost no cultural resources research had been conducted within the dry impoundment area. Eight archeological sites had been recorded along the margins of the dry impoundment area. No information could be found concerning three "Indian mounds" depicted on U.S.G.S. quad maps. Approximately 560 acres within the two proposed dam alignments and their associated spillways were surveyed. Nine locations of cultural resources (1 pre-historic site, 6 structures and 4 historic sites) were located. All are described.

Approximately 837 acres were surveyed between River Miles 278 and 301. Five previously recorded sites were visited; two previously recorded sites could not be reached because of flooding. Six new cultural resource locations (5 structures and a historic site) were recorded. All are described.

Recommendations and future goals for the study area are presented. Additionally, the references utilized in this study are annotated.

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The Contracting Agency was very helpful throughout the project. Dottie Gibbens gave much of her time. Her advice and encouragement helped create a most pleasant working atmosphere.

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1. INTRODUCTION

Heartfield, Price and Greene, Inc., of Monroe, Louisiana (under contract #DACW01-81-C-0066-P00002), was retained by the U.S. Army Corps of Engineers, Mobile District to: a) complete a cultural resources inventory of proposed dam and dry impoundment areas north of Ross Barnett Reservoir and b) to conduct a cultural resources reconnaissance of the Pearl River, between River Mile 278 and 301, in the vicinity of Jackson, Mississippi (Figure 1).

The work was undertaken in partial fulfillment of the Mobile District's responsibilities for cultural resources under the National Historic Preservation Act of 1966 (PL89-665) as amended; the National Environmental Policy Act of 1969 (PL91-190); Executive Order 11593, and the Archeological and Historic Preservation Act of 1974 (PL93-291). The purpose of this study was to provide detailed information concerning the nature, type, and distribution of the cultural resources within the study area in order to assist the Mobile District in implementing additional cultural resources investigations when alternate plans of action have been developed.

1.1 Location

1.1.1 Dry Impoundment Area

The dry impoundment area is located upstream from the head of Ross Barnett Reservoir. Two alternate dam alignments with associated spillways have been proposed in the vicinity of River Mile 342. The locations of both are covered by the U.S.G.S. Sharon, Mississippi, 15' Topographic quad. The downstream dam extends approximately from the junction of the Natchez Trace Parkway with the western boundary of Section 35, T9N, R4E through the northwest corner of Section 12, T8N, R4E to the 340 feet above mean sea level contour line in the center of the northeast quarter of the southwest quarter of Section 12, T8N, R4E. The associated spillway area incorporates all or portions of Sections 11, 12, 13, 14, 23 and 24, T8N, R4E and portions of Sections 7, 18 and 19, T8N, R5E. The upstream dam extends, approximately, from the mid point of the southern boundary of the northeast quarter of the northeast quarter of Section 26, T9N, R4E to the 350 feet above mean sea level contour line at the mid point of the southern boundary of the southwest quarter of the northwest quarter, Section 5, T8N, R5E. The associated spillway area includes portions of Sections 32 and 33, T9N, R5E, and all or portions of Sections 3, 4, 5, 6, 7, 8, 9, 10, 15, 16 and 17, T8N, R5E. The limit of the dry impoundment area is the 330 feet above mean sea level contour line upstream from the dams. The dry impoundment areas are covered by the following U.S.G.S. 15' Topographic quads: Carthage, Mississippi (1961); Morton, Mississippi (1951); Pelahatchie, Mississippi (1950); and Sharon, Mississippi (1960).

1.1.2 Pearl River, Between River Miles 278 and 301

The areas of the Pearl River between River Mile 278 and 301, in the vicinity of Jackson, include a proposed floodway, two proposed diversion channels and two ponding areas. The proposed project areas are covered by the following U.S.G.S. 7.5' Topographic quads: Florence, Mississippi (1971); Jackson, Mississippi (1971 and 1980); Jackson Southeast, Mississippi (1971); and Madison, Mississippi (1971). The floodway does not extend beyond a

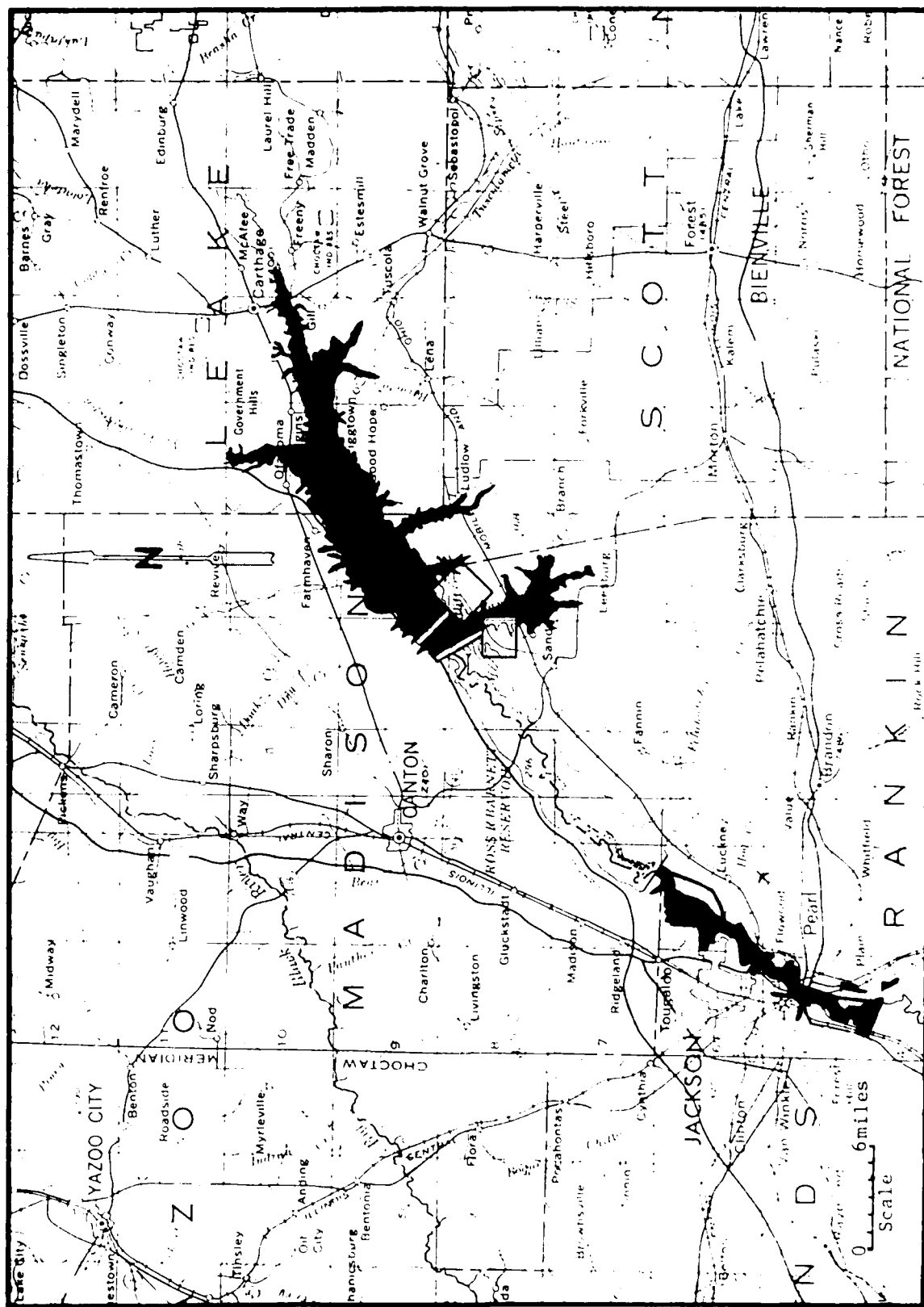


Figure 1-1. General location of project area.

distance of 1.6 kilometers (1 mile) from either side of the Pearl River. The northern proposed diversion channel is located east of the Pearl River in Sections 2, 10, 11, 15, 21 and 22, T6N, R2E, and is designed to alleviate potential flooding of sewage disposal ponds. The southern diversion channel is located east of the Pearl River, in Sections 22, 27 and 34, T5N, R1E, and is designed to alleviate potential flooding of sewage disposal ponds. One of the ponding areas is within Sections 26, 27 and 34, T5N, R1E and the other is within Sections 2, 3, 10 and 11, T4N, R1E. Both are east of the Pearl River.

1.2 Project Objectives

The objectives of the study were to conduct a cultural resources inventory of the proposed dry impoundment areas and associated dams and spillway areas and to conduct a cultural resources reconnaissance of the flood preventive measures between River Miles 278 and 301 in the vicinity of Jackson.

1.2.1 Dry Impoundment Areas Inventory

Specific objectives of the inventory were to: 1) conduct an archival search to determine the location and extent of previous cultural resources investigations and the nature of recorded cultural resources within the project area, 2) prepare a narrative describing the cultural sequence (prehistoric, historic and modern) of the study area, 3) conduct a reconnaissance of the proposed dam alignments and associated spillways, and 4) prepare a report describing the methods utilized to accomplish the above objectives, the results and recommendations for future management options.

1.2.2 Pearl River, Between River Miles 278 and 301

Specific objectives of the reconnaissance of project areas in the vicinity of Jackson were to: 1) confirm and update project specific information obtained from a previous inventory of the Pearl River from the Ross Barnett Reservoir to the mouth, 2) visit previously recorded sites to determine their present condition, 3) conduct a sample oriented on-the-ground survey of between 5 and 10 percent of the project specific areas, and 4) prepare a report describing the methodology utilized to accomplish the above objectives, the results and a section recommending future management options and research goals.

1.3 Methodology

The methodology employed for meeting the objectives of the study can be broken down into three phases: literature/archival research, on-the-ground survey and post-survey analysis/report writing.

1.3.1 Literature/Archival Research

The literature/archival research for the two project areas was carried out simultaneously and involved the same basic methodology.

The National Register of Historic Places and its supplements were checked for listed sites within both project areas. Personnel with the State Historic Preservation Office (Mississippi Department of Archives and History) were also consulted to determine whether or not any sites had been recently nominated.

Archeological site files maintained by the Mississippi Department of Archives and History, Jackson, Mississippi, were checked for previously recorded cultural resources within both project areas. Personnel of the Mississippi Department of Archives and History were also consulted for any additional pertinent information regarding cultural resources in the study area and information on unpublished surveys which might have been conducted within the project areas.

Published and unpublished archeological literature relevant to the project area and the Pearl River in general were researched in order to produce the cultural background section of this report. In particular, information contained in "A Cultural Resources Inventory of the Pearl River Basin, Louisiana and Mississippi, Volumes I and II" (Heartfield, Price and Greene, Inc. 1982) provided much of the base information regarding the project area and previously recorded cultural resources within.

A number of State and Federal agencies in Jackson, Mississippi, were consulted for information regarding settlement and land use patterns within the study area. These include the Mississippi Highway Department, the Mississippi State Geological Survey, the Office of the Mississippi Secretary of State, the State Land Office, the United States Soil Conservation Service, and the Hinds County Agricultural Stabilization and Conservation Service. In addition, the Rankin County Soil Conservation Service, Brandon, Mississippi; standard geographical sources and the county land records of Madison, Leake, Scott, Rankin and Hinds Counties were checked.

1.3.2 On-the-Ground Survey

The areas selected for on-the-ground survey were chosen after the initial records check had been undertaken to determine the limits of previously surveyed areas and the locations of previously recorded sites. Previously surveyed areas were not resurveyed. However, attempts were made to visit all previously recorded sites.

After elimination of previously surveyed areas, selection of areas that were surveyed was made after examination of U.S.G.S. Topographic quads. Factors taken into consideration during the selection process included: ease of accessibility, ease of identification of the boundaries of the areas surveyed, and topography. The areas were selected so that, as with previously surveyed areas, all topographic features within the project areas would be sampled. In general, areas were selected which provided a transect across the project area at right angles to the prevailing topography. Previously surveyed areas and areas surveyed during the present reconnaissance have been depicted on separate quad maps submitted to the Corps of Engineers.

The on-the-ground survey was conducted by a three person crew. However, the crew was split up into smaller crews when surveying some of the smaller areas. A total of 31 man days was spent in the field between February 9 and 18, 1982.

The survey technique utilized one of two methodologies; either a transect approach or a topographic feature approach. The transect approach was used on larger relatively featureless areas, particularly in the Dry Impoundment Area. The survey crew walked a series of contiguous transects until the entire area was surveyed. Crew members were spaced at intervals of approximately 50

meters and headings were maintained using a compass. The topographic feature approach was used in those areas where topography or man-made features were pronounced, or where easily identifiable land breaks, such as terraces, levees, the river, creeks, or roads were present. Using this approach each feature, or area, was surveyed in a series of "mini"-transects. At no time was the intensity of survey less than using the transect method; in fact, previous experience suggests that this type of survey is more intensive as more time is devoted to looking at the ground and less time is spent maintaining headings. All exposed ground surfaces, including rodent back dirt piles, road cuts, ditch faces, etc., were examined for surface and subsurface manifestations of cultural activity.

In an attempt to locate buried cultural deposits, shovel tests were excavated in areas of high site probability and included, primarily, areas not generally prone to flooding such as ridges and terraces. Tests were also excavated in areas beyond high site probability locations for comparative purposes. Shovel tests were approximately 0.30 x 0.30 meters in plan and extended in depth to geologic formations believed by the field crew to be older than the generally accepted date of man's entry into the New World, circa 15,000 years B.P. or to the physical limits for this kind of testing, approximately one meter. Fill from the shovel tests was screened through 1/4" hardware cloth. Typical sections revealed in the shovel tests were described and soil smears were taken. All holes were backfilled.

At previously recorded locations and when newly identified cultural remains were observed on the surface, or found in the fill of shovel tests, limited investigations were undertaken to determine the limits of the site and the nature of the deposits. Site limits were determined by a combination of surface observations and systematic shovel testing. Obviously, for those sites which had no surface manifestations, all information came from shovel tests.

Subsurface testing at sites with surface manifestations was limited to determining the presence/absence of subsurface deposits and to determining the extent and nature of those deposits present. In general, subsurface testing was more intense at those sites which did not exhibit in situ deposits than at those which did. The actual number of tests conducted depended on the individual site. Profiles of typical shovel tests were recorded using the standard soils terminology; the Munsell color chart was used for describing soil colors. All shovel tests were backfilled.

Sketch maps were made of each site, or of areas visited in which previously recorded sites were located, noting the location of subsurface tests, surficial cultural remains and disturbances to the site area.

Black and white 35 millimeter photographs were taken. Occasional color Polaroid photos were taken to augment field notes and to act as "memory joggers."

1.3.3 Post-Survey Analysis

Upon completion of the field survey, sites were assigned site numbers in the accessioning system utilized by Northeast Louisiana University and Heartfield, Price and Greene, Inc. Mississippi site forms were completed and

forwarded to the Mississippi Department of Archives and History for official number assignation.

Artifacts from each site were cleaned, labelled, and analyzed. Attempts were made to identify artifacts with previously defined types so that sites could be identified, where possible, with a particular time period, cultural group, or resource utilization or activity.

The results of the field observations and artifact analysis were then compared with known cultural resources data pertinent to the Pearl River Basin identified from the literature/archival search to identify, at least in a preliminary manner, those sites at which further investigations would be likely to yield additional information pertaining to our knowledge of the prehistory and history of the region, and which are thus considered potentially eligible for inclusion on the National Register of Historic Places.

The data from the reconnaissance and literature/archival search were also utilized to identify the most likely locations of sites within the project areas. This information was then used to prepare recommendations for further cultural resources investigations in the areas.

1.4 Arrangement of the Report

The foregoing introduction has outlined the reasons for the survey, the general location of the project area, the project objectives and the general methodologies employed.

The environmental setting of the Pearl River Basin and both project areas is discussed in Chapter 2.

Previous cultural resources investigations within the two study areas are discussed in Chapter 3. The cultural sequence revealed by previous investigations is described in Chapter 4.

The results of the survey, both literature/archival and on-the-ground, are described and discussed in Chapter 5.

Chapter 6 summarizes the results of the determination of National Register of Historic Places eligibility. Recommendations for future cultural resource research within the project area are discussed in Chapter 7.

The references cited following Chapter 7 have been annotated.

Appendices contain the known information of cultural resources within the Dry Impoundment Area (Appendix A) and adjacent to the Pearl River between River Miles 278 and 301 (Appendix B).

2. ENVIRONMENTAL SETTING

2.1 Physiography

2.1.1 Pearl River Basin

The Pearl River Basin of Mississippi lies within the Gulf Coastal Plain province of North America. The Gulf Coastal Plain province is a segment of the Mesozoic-Cenozoic coastal geosyncline of eastern North America (Murray 1960). It covers more than 150,000 square miles and contains predominantly arenaceous-argillaceous, marginal to shallow-marine strata to a depth of 50,000 feet. The geosynclinal mass overlies Precambrian-Paleozoic rocks of variable facies, structure and degree of metamorphism. The top surface of the strata possesses an overall slope towards the Gulf of Mexico.

Priddy (1960) has identified 12 physiographic units in Mississippi: the Paleozoic Bottoms, the Tombigbee Hills, the Black Prairie, the Pontotoc Ridge, the Flatwoods, the North Central Hills, the Jackson Prairie, the Vicksburg Hills, the Piney Woods, the Loess Hills, the Yazoo Basin and the Coastal Meadows. Of these, five are found in the Pearl River Basin (the North Central Hills, the Jackson Prairie, the Vicksburg Hills, the Piney Woods, and the Coastal Meadows).

2.1.1.1 North Central Hills - The North Central Hills covers almost one-fifth of Mississippi. Fisk (1944) referred to the area as the Eastern Hills. The North Central Hills is located east of the Loess Hills, west of the Flatwoods and north of the Jackson Prairie (Priddy 1960). In most of Mississippi, the North Central Hills have been carved from sands, silts, silty clays, claystones and marls. However, in Madison County, at the southwest edge of the North Central Hills, the claystones and marls are largely absent.

Within the Pearl River Basin, the North Central Hills are developed on the Upper Claiborne age, Cockfield Formation. The beds of the Cockfield are 360 to 400 feet in thickness and have diverse lithologies. The diverse lithology and some faulting results in a great variety of physiographic features. Steep ridges and deep, narrow valleys have been carved in massive sands. Sharp, but low, hills have been cut in thin-bedded silts and sandy silts. Broad, low hills have been formed by erosion of massive clays.

A unique feature of the North Central Hills, a cuesta, is present near Canton in Madison County. A cuesta is a ridge which was formed by gently dipping strata more resistant to weathering than the beds above and below. The cuesta in Madison County was formed by the more resistant Moodys Branch and the less resistant, underlying Cockfield and overlying Yazoo Clay (Ibid).

The topography in the portion of the North Central Hills in the Pearl River Basin ranges from approximately 400 feet above mean sea level in the southeastern corner of Madison County to less than 250 feet around Walnut Creek and Dry Creek. Broad, flat swamps characterize the area around the Pearl River. These swampy bottoms (some of which are cultivated) are up to three miles in width. However, many of the swampy areas have been greatly reduced by the building of the Ross Barnett Reservoir (Ibid).

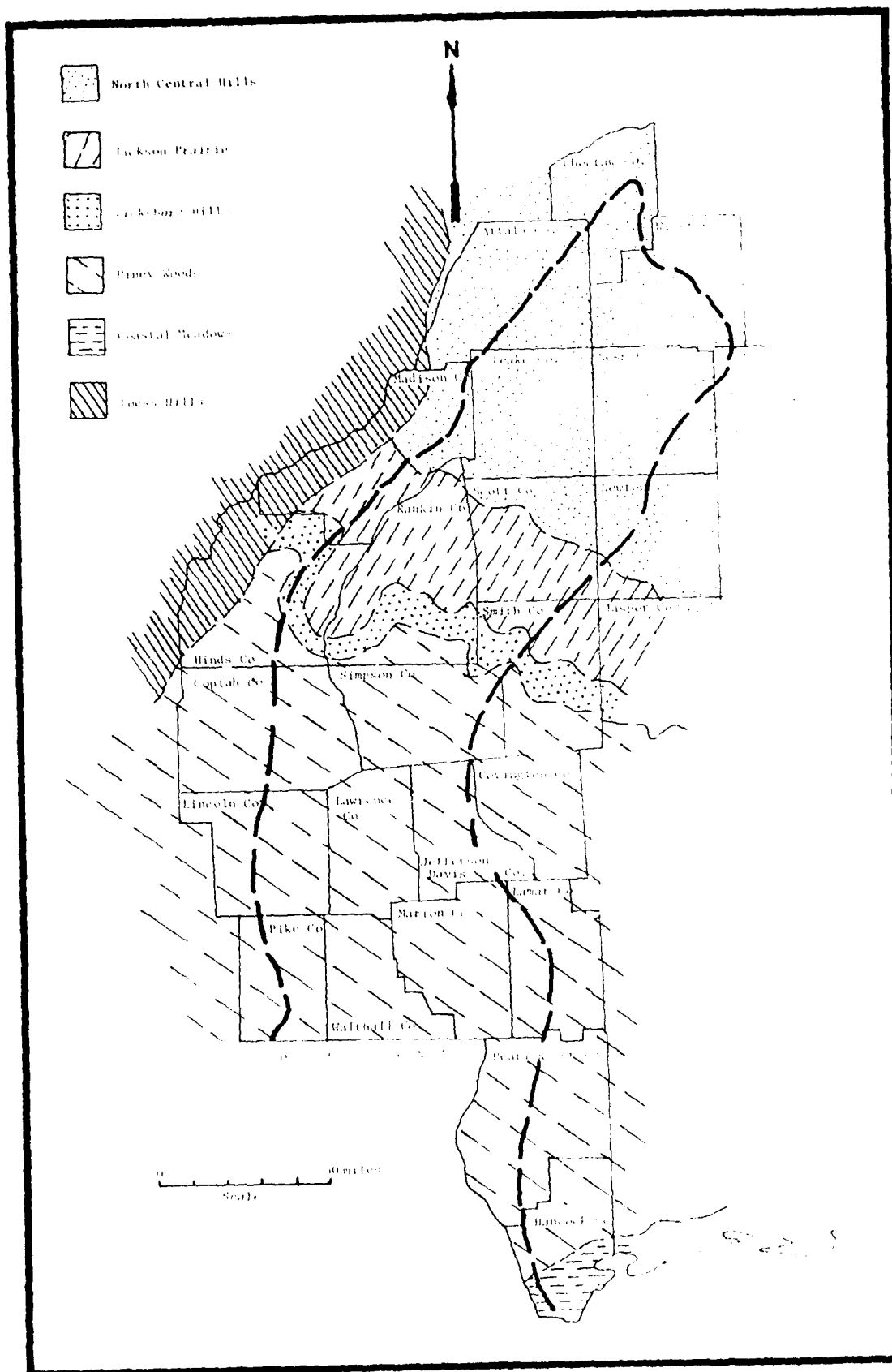


Figure 2-1. Pearl River Basin, physiographic units.

2.1.1.2 Jackson Prairie - The Jackson Prairie physiographic province is a northwest-southeast trending belt. At its widest point, it is approximately 40 miles wide (Ibid). It is located east of the Loess Hills, south of the North Central Hills and north of the Vicksburg Hills.

The majority of Rankin County and the majority of Hinds County in the study area are located in the Jackson Prairie. The Jackson Prairie was developed on the outcrop area of the massive Yazoo Clay. The Jackson Prairie is characterized by gently rolling terrain with deposits of terrace sands capping some of the higher hills (Baughman 1971).

The Jackson Dome or Uplift exhibits a pronounced effect on the Jackson Prairie and other physiographic units in western Rankin County and eastern Hinds County. If structural conditions were normal with regional dip prevailing, the Yazoo Clay and the Jackson Prairie would not be exposed in Rankin and Hinds County (Ibid).

The topography of Rankin County varies from broad, gently-rounded hills and broad, flat alluvial plains to high, narrow hills and ridges with steep slopes and narrow valleys. The area influenced by the Jackson Dome consists of broad, rounded hills (Ibid).

The topography in Hinds County varies from high, rugged hills with steep slopes and narrow valleys through lower, more rolling hills, wider valleys and gentler slopes, to rather broad, flat alluvial plains (Moore 1965). A prominent ridge runs generally north-south across the eastern one-third of Hinds County. This ridge forms a divide between the Pearl and Big Black River drainage basins. Some of the highest elevations in the County are found along the southern part of this divide with elevations over 400 feet above mean sea level. Along this divide, the relief is as much as 150 feet with the western slope of the divide being somewhat steeper than the eastern slope.

2.1.1.3 Vicksburg Hills - The Vicksburg Hills physiographic province is a very narrow, areally restricted, generally northwestern-southeastern belt extending from Hinds County eastward across the state (Priddy 1960). In the Pearl River Basin, the Vicksburg Hills physiographic unit extends across Hinds County, Rankin County, and a very small part of Simpson County. It is generally less than five miles in width.

This physiographic unit is located east of the Loess Hills, south of the Jackson Prairie and north of the Piney Woods. The Vicksburg Hills belt shares the same northern boundary as the Long Leaf Pine Hills as defined by Lowe (1915). The Vicksburg Hills belt is characterized by a steep slope near the contact of the Yazoo Clay and Forest Hill Formation on the northern edge of the belt and includes that portion underlain by the Vicksburg Group (Oligocene).

Monroe (1954) described the topography of the Vicksburg Hills province as consisting of an abrupt scarp of the Forest Hill cuesta at the northern edge. South of this contact, the province is characterized by a more gentle back slope over the outcropping edges of the Forest Hill Formation sandstones and limestones of other Vicksburg Group Formations.

2.1.1.4 Piney Woods - The Piney Woods physiographic province is located east of the Loess Hills, south of the Vicksburg Hills and north of the Coastal Meadows (Priddy 1960). The Piney Woods is the most widespread province in the Pearl River Basin covering part or all of the following counties: Rankin, Copiah, Simpson, Lincoln, Lawrence, Jefferson Davis, Pike, Whitehall, Marion, Lamar, Pearl River and Hancock. The province also covers part of Washington and St. Tammany Parishes in Louisiana.

The Piney Woods physiographic province developed mainly on Miocene sediments. In some areas, Pliocene deposits are also present. The topography varies from the northern part, in Copiah and Simpson Counties, to the southern part, in Pearl River and Hancock Counties.

The topography of the northern section is characterized by uplands, rolling hills and lowlands. In the upland areas, topographic features vary from rolling plains to rugged hills. Generally, elevations within the upland areas range from near 300 feet to more than 500 feet above mean sea level. The upland areas may grade into the rolling hill areas. The rolling hills are products of erosion of the upland areas and are underlain by Miocene strata and some alluvial terrace material. In many areas, the rolling hills are absent and the rugged upland type topography borders the lowland areas. The lowland areas are composed of the alluvial plains developed by the major streams and their tributaries. Topography is mostly inclined or flat, low plains. Elevations on the Pearl River alluvial plain range from an average of approximately 240 feet above mean sea level in the northern part of the Piney Woods (Ibid).

In the southern part of the Piney Woods physiographic province, the elevations are lower. Also, the uplands and rolling hills are not as developed in the southern portion as in the northern area. The alluvial plains and lowlands are more developed. Topography on the alluvial plain is mostly inclined or flat, low plains with small relief features formed by abandoned stream channels, natural levees, terraces, bars, alluvial fans, and other minor features formed by flooding and shifting of stream channels (Ibid).

2.1.1.5 Coastal Meadows - The Coastal Meadows physiographic province is the southern-most province in Mississippi (Ibid 1960), and also the southern-most physiographic unit in the Pearl River Basin. The Coastal Meadows includes only a small portion of the Pearl River Basin in Hancock County, Mississippi and in St. Tammany Parish, Louisiana. The Coastal Meadows unit is located south of the Piney Woods and consists of a narrow strip along the coast. Elevations are less than 100 feet above mean sea level. The Coastal Meadows consists of marshes, wetlands and beach areas. The marshlands vary from fresh to brackish to saline.

2.1.2 Dry Impoundment Area

The Dry Impoundment Area, upstream from the head of Ross-Barnett Reservoir, consists of land below the 330 feet above mean sea level contour. Topographic features consist of bottomland features within the floodplain of the Pearl River and its tributaries. Major tributaries are Fannegusha Creek, Coffee Boque Creek, Yockanookany River and Tuscolameta Creek. Rivers are very sinuous with numerous abandoned channels and courses. Large parts of the area consist of swamp.

The spillway areas associated with the dams extend to elevations of approximately 360 feet above mean sea level. Topographic features consist of eroded and dissected ridges.

2.1.3 Pearl River, Between River Miles 278 and 301

The study area in the vicinity of Jackson is comprised of floodplain topographic features (backswamps, abandoned channels and courses, ridges and swales) adjacent to the Pearl River. The ridge and swale topographic features are generally narrow and steep sided. Elevation generally ranges between 240 and 260 feet above mean sea level. Portions of the floodplain have been channelized. A few small areas of high bluffs, at or above the 270 feet above mean sea level contour line, exist on the western margin of the study area.

2.2 Geology

2.2.1 Pearl River Basin

The exposed strata in the Pearl River Basin consist entirely of Cenozoic sediments. Tertiary and Quaternary formations characterize the study area; the general sequence is depicted in Figure 2-2. The following formations are exposed in the Pearl River Basin: Lisbon (Eocene), Cockfield (Eocene), Moodys Branch (Eocene), Yazoo Clay (Eocene), Forest Hill Formation (Oligocene), Mint Spring Formation (Oligocene), Glendon Limestone (Oligocene), Bucatunna Clay (Oligocene), Catahoula (Miocene), Hattiesburg (Miocene), Citronelle Formation (Pliocene), Bentley (Pleistocene), Montgomery (Pleistocene), Prairie (Pleistocene) and alluvium (Recent). A general description of these formations is given below:

2.2.1.1 Lisbon - The Lisbon Formation belongs to the Claiborne Group (Eocene) and represents the oldest exposed sediments in this portion of the study area. The major member of the Lisbon is the Wautubbee Member (Priddy 1960). The lithology is highly variable with three facies being recognized: 1) chiefly marls, 2) sands, silts, chocolate-colored clays, and gray plastic clays, and 3) a chocolate-colored clay facies (Ibid 1960). In order of abundance, the lithology is characterized by massive sands, thin-bedded silts, chocolate-colored clays, and gray plastic clays. The sediments of the Lisbon underlie the Cockfield sediments and in places, interbed and lense into the very similar strata of the Cockfield.

2.2.1.2 Cockfield - The Cockfield Formation belongs to the Claiborne Group (Eocene) and consists of gray, silty, carbonaceous, micaceous clays; gray, very fine to fine-grained, silty sands; and thin beds of lignite (Moore 1965). On the weathered outcrops, the sands, silts and clays are gray, brown and buff. The Cockfield is exposed in Madison and Hinds County. The Cockfield is approximately 550 feet in thickness and is overlain disconformably by the Moodys Branch Formation. The disconformity is characterized by fragments of Cockfield clays reworked into the basal Moodys Branch by a sharp change from Cockfield silty clays to Moodys Branch limy sands and by borings in the upper Cockfield filled with glauconitic, fossiliferous sand of the overlying Moodys Branch.

2.2.1.3 Moodys Branch - The Moodys Branch Formation belongs to the Jackson Group (Eocene) and is exposed west of the Pearl in the vicinity of

| ERA | PERIOD | EPOCH | GROUP | FORMATION |
|----------|------------|----------------------|---------------|-----------------------|
| CENOZOIC | QUATERNARY | HOLOCENE (Recent) | | ALLUVIUM |
| | | PLEISTOCENE | | PRAIRIE |
| | | | | MONTGOMERY |
| | | | | BENTLEY |
| | TERTIARY | PLIOCENE | | CITRONELLE FORMATION |
| | | MIOCENE | GRAND GULF | HATTIESBURG |
| | | | | CATAHOULA |
| | | OLIGOCENE | VICKSBURG | BUCATUNNA CLAY |
| | | | | GLENDON LIMESTONE |
| | | | | MINT SPRING FORMATION |
| | | | | FOREST HILL FORMATION |
| | | EOCENE | JACKSON | YAZOO CLAY |
| | | | | MOODYS BRANCH |
| | | | CLAIBORNE | COCKFIELD FORMATION |
| | | | | LISBON FORMATION |

Figure 2-2. Generalized Section of Exposed Strata in the Study Area.

Jackson. The Moodys Branch is a very limy, fossiliferous, clayey, glauconitic sand. It is green to gray-green in fresh exposures and weathers to a yellowish color. It contains partly indurated layers of soft, sandy, clayey limestone in some exposures (Ibid 1965). The Moodys Branch is generally 10 to 15 feet thick in Madison and Hinds County. Its thickness varies on and around the Jackson Dome. Within Hinds County, the Moodys Branch attains a maximum thickness of 45 feet. The Moodys Branch is extremely rich in well--preserved, marine invertebrates and vertebrate fossils. Geologists and paleontologists have collected from the Moodys Branch for over 100 years in the study area. Both the type locality and the alternate type locality of the Moodys Branch are found within the boundaries of the study area (in Jackson, Hinds County).

2.2.1.4 Yazoo Clay - The Yazoo Clay belongs to the Jackson Group (Eocene) and represents the uppermost Eocene formation in the study area. The Yazoo Clay is exposed in Madison County, Rankin County and Hinds County. The Yazoo Clay is a fairly homogenous unit consisting of blue-green to blue-gray, calcareous, fossiliferous clay with some pyrite. The upper few feet of the Yazoo is non-calcareous and slightly silty. The Yazoo is very limey and glauconitic just above the contact with the subjacent Moodys Branch Formation. Beds of soft, white, argillaceous limestone are present in some localities. The Yazoo Clay weathers to a yellowish or greenish-yellow color. The weathered clay frequently is stained by limonite and manganese along joints (Ibid). Calcareous nodules are quite commonly found in outcrops of weathered Yazoo. Selenite crystals are common at the outcrop and are found at depths up to 30 or 40 feet in the Yazoo Clay. The Yazoo attains thicknesses up to 525 feet in Hinds County.

2.2.1.5 Forest Hill Formation - The Forest Hill Formation represents the oldest Oligocene sediments in the Pearl River Basin. The formation is placed in the Vicksburg Group and is exposed in Madison County, Rankin County and Hinds County. The Forest Hill is made up of very fine to fine-grained, silty, micaceous sands and silty, carbonaceous clay. There are several thin lignite beds in the Forest Hill. The Forest Hill is thinly bedded and presents a laminated appearance on the outcrop. In its unweathered state, the Forest Hill sands are gray to bluish-gray and the clays are gray to gray-brown. When weathered, the sands and clays may be gray, yellow, pink and buff. Thin limonite partings are common in the Forest Hill Formation (Ibid).

2.2.1.6 Mint Spring Formation - Another Oligocene formation exposed in the Pearl River Basin is the Mint Spring Formation. The Mint Spring is exposed in Rankin and Hinds Counties. The Mint Spring consists of gray-green, fine to coarse-grained, glauconitic, fossiliferous sand and gray-green, glauconitic, fossiliferous sandy marl. The formation may be clayey in part. Pyrite and black phosphatic fossil materials are abundant in the Mint Spring (Ibid). The lower limit of the Mint Spring is placed at the first occurrence of carbonaceous clays or fine-grained, carbonaceous, micaceous sands of the Forest Hill. The upper limit is the lowest indurated limestone bed of the Glendon. The thickness of the Mint Spring in the study area varies from five feet to over 30 feet (Baughman 1971).

2.2.1.7 Glendon Limestone - The Glendon Limestone is exposed in Rankin and Hinds Counties. The Glendon consists of alternating beds of gray,

fossiliferous, glauconitic, slightly sandy limestone and gray-green, glauconitic, fossiliferous, sandy marl (Ibid). The Glendon weathers to a yellowish or buff color. The limestone beds in the Glendon may vary in number, thickness, and stratigraphic position from place to place. A hard bed about 10 feet from the top of the Glendon is the most consistent and usually the thickest. The Glendon may weather to a dark brown residual clay (Moore 1965).

2.2.1.8 Bucatunna Clay - The Bucatunna Clay, like the underlying Glendon Limestone, is found in Rankin and Hinds Counties. The Bucatunna Clay is Oligocene in age and placed in the Vicksburg Group. The Bucatunna consists of dark gray to black, finely carbonaceous, sparsely pyritiferous clay with thin silt-laminae (Baughman 1971). The clay contains thin beds of very fine to fine-grained glauconitic sand in some localities. Gray-green, clayey marls are present in the Bucatunna in some places. The Bucatunna weathers to a chocolate brown color with limonite staining on fractures. Thin limonite flakes and sparse gypsum crystals may be found on the outcrop.

2.2.1.9 Catahoula - The oldest Miocene deposits exposed in the Pearl River Basin belong to the Catahoula Formation. The Catahoula consists of gray to white, very fine to coarse-grained sands, locally indurated in varying degrees to form sandstones; gray, tan and white silts and siltstones; gray, green, buff and purple, very silty clays and clayey silts and some gray to buff, slightly silty clay. The sands contain much kaolinitic, interstitial material accounting for the white color. Some of the sandstones, particularly the fine-grained ones and siltstones are extremely indurated on the surface or very near the surface (Moore 1965).

2.2.1.10 Hattiesburg - Another Miocene formation exposed in the Pearl River Basin is the Hattiesburg Formation, which consists mainly of silty clays with minor amounts of sand. In the weathered surface exposures, the clays are predominantly tan to moderate reddish-brown in color. Dark gray to greenish-gray clays are also present. At some exposures, ferruginous concretions are abundant. The concretions appear as bright to dark red, rounded or spherical clay balls (Bicker 1969).

2.2.1.11 Citronelle Formation - The Citronelle Formation is exposed in Rankin, Hinds, Copiah, Simpson, Lawrence, Marion, Pearl River and Hancock Counties in the Pearl River Basin. The Citronelle is Pliocene in age. The term Citronelle has been applied to most of the graveliferous deposits in Mississippi (Moore 1965). The formation is predominantly sandy with local lenses or layers of clay and gravel. Where present, the gravels are usually concentrated near the base of the formation and decrease generally upward through the section. In some places, the formation consists almost entirely of gravel. The colors of the Citronelle deposits are usually various shades of red and orange. The gravel of the Citronelle is generally composed of chert with smaller percentages of quartz. The pebbles exhibit varying degrees of roundness from sub-angular to well-rounded. The pebble material is a poorly sorted aggregate that ranges from granule size to cobble size with frequent occurrences of material that is of boulder size (Ibid). The gravel of the Citronelle would have been ideal for aboriginal utilization. In addition to being widespread, the deposits of the Citronelle contain abundant chert material suitable for lithic tool manufacture.

2.2.1.12 Bentley, Montgomery and Prairie (Pleistocene terrace deposits) - Pleistocene terrace deposits are found in Madison, Rankin, Hinds, Copiah, Lawrence, Marion, Pearl River and Hancock Counties. These terrace deposits are also found in Washington and St. Tammany Parishes in Louisiana. The Pleistocene terrace deposits may overlie almost any geologic units. The deposits are made up of gravel, fine to coarse-grained sand and occasional clay lenses (Ibid). Most of the gravels are chert with some quartz. The sands are stained red on the surface and the clays are red, yellow, pink, buff and purple in color. The higher level deposits usually are more graveliferous and the lower deposits are predominantly sand. The Pleistocene gravels could have provided lithic material suitable for utilization.

2.2.1.13 Alluvium - Recent or Holocene alluvium is found throughout the Pearl River Basin. Alluvium is especially widespread in the alluvial plains of rivers, creeks, and smaller streams. The alluvium is generally stratified with gravel at the base, then sand, sand and silt, and in some places, clay. The alluvium may also contain abundant organic material. The alluvial deposits are laid down in an essentially horizontal plane. Holocene gravels could have provided sources of raw materials for later aboriginal populations.

2.2.2 Dry Impoundment Area

Surface geologic deposits within the Dry Impoundment Area consist of recent alluvium. Within the upstream dam spillway area, approximately 75 percent of the surface geologic deposits consist of Eocene Yazoo clay and 25 percent of the surface geologic deposits consist of recent alluvium. Within the downstream dam spillway area, approximately 50 percent of the surface geologic deposits consist of Eocene, Yazoo clay and approximately 50 percent of the surface geologic deposits consist of recent alluvium (Baughman 1971: Plate 1).

2.2.3. Pearl River, Between River Miles 278 and 301

Surface geologic deposits along the floodway in the vicinity of Jackson in Hinds County, consist predominately of Eocene-Yazoo formation. However, in the vicinity of the City of Jackson itself, there are small areas of Cockfield formation (approximately 1,200 acres), Moodys Branch formation (40 to 80 acres) and Pleistocene pre-Loess terrace deposits (between 40 and 80 acres) (Moore 1965: Plate 1). Within Rankin County deposits in the floodway have been identified as recent alluvium (Baughman 1971: Plate 1). Surface geologic deposits along both the diversion channels have also been identified as recent alluvium. Surface geologic deposits in the north ponding area also consist of recent alluvium. Surface geologic deposits in the south ponding area consist of Pleistocene pre-Loess deposits.

2.3 Soils

The types of soils present in an area directly influence the types and amounts of vegetation that can exist. Forest types are, in a large part, controlled by the types of soils. The amount of water present in an area is also determined by soil types. The types of soils also indirectly affect the kinds of wildlife that can survive in an area. Soil properties that affect wildlife habitats include the thickness of soils, surface texture, available

water capacity, rockiness, hazard of flooding, slope and permeability. The direct and indirect effects of soil types, such as wildlife, vegetation and water, affected the aboriginal populations in the Pearl River Basin.

2.3.1 Dry Impoundment Area

2.3.1.1 Bottomland Portion of the Dry Impoundment Area - Areas within the Pearl River floodplain portion of the proposed Dry Impoundment areas are dominated by nearly level soils subject to flooding. At and below the 330 feet above mean sea level contour (the proposed maximum pool elevation) the soils belong to the Gillsburg-Rosebloom-Ariel association and the Houlka-Una-Rosebloom association (U.S.D.A.-S.C.S. 1971 General Soils Maps for Leake County, Madison County, Scott County and Rankin County). These associations are characterized by somewhat poorly and poorly drained soils that have clayey and/or silty subsoils on floodplains.

Flooding of the Dry Impoundment Area will fill the floodplains of several tributary streams of the Pearl River up to the 330 feet above mean sea level contour. The ridge surfaces flanking these tributaries, Town Creek, Pella-phalia Creek, Yellow Creek, Witt Creek, the Yockanookany River, Fannegusha Creek, Purnell Creek, Sycamore Creek, Coffee Boque, Gibbs Creek, Watson Branch, Mayo Branch, Bibalucta Creek and Tuscolameta Creek, are characterized by soils of the following associations: Providence-Buda-Henry, Kipling-Savannah-Pheba, Vaiden-Brooksville, and Calloway-Henry-Grenada. These are moderately well, somewhat poorly and poorly drained, nearly level to gently sloping soils that have loamy or silty subsoils. These associations are characteristic of upland ridges and terraces flanking drainageways.

2.3.1.2 Upstream Dam and Associated Spillway - The northwestern end of this proposed dam is located on the south edge of the Natchez Trace Parkway at an elevation of about 330 feet above mean sea level on soils of the Calloway-Henry-Grenada association. Soils traversed in the Pearl River floodplain belong to the Gillsburg-Rosebloom-Ariel association. The southeastern terminus, located on the uplands adjacent to the floodplain at an elevation of approximately 350 feet above mean sea level, is characterized by soils of the Vaiden-Brooksville association. The associated spillway area, covering 2.3 x 2.3 miles (3.7 x 3.7 km) and ranging in elevation from 310 to 350 feet above mean sea level, is also characterized by soils of this association.

2.3.1.3 Downstream Dam and Associated Spillway - Soils along the northwestern end of this dam and the area traversed within the Pearl River floodplain are as described for the upstream dam. The southeastern terminus of the downstream dam is on uplands at an elevation of about 340 feet above mean sea level. Soils on this upland ridge belong to the Kipling-Savannah-Pheba association. These have been described for the Dry Impoundment Area above. The associated spillway area, covering 2.2 x 2.2 miles (3.5 x 3.5 km.) and ranging in elevation from 300 to 350 feet above mean sea level, is characterized by three soil associations; the Gillsburg-Rosebloom-Ariel association in the northwest corner of the spillway area, the Kipling-Savannah-Pheba association in the central portion and the Houlka-Una-Rosebloom association along the eastern edge of the area. These have been described for the Dry Impoundment Area and Upstream Dam.

2.3.2 Pearl River, Between River Miles 278 and 301

2.3.2.1 Proposed Floodway - The soils maps for Hinds and Rankin Counties (U.S.D.A.-S.C.S. 1979 and 1972, respectively) depict different soils associations either side of the Pearl River.

Within Hinds County four soils associations have been identified. Two associations, the Cascilla-Bonn-Deerford and the Reidtown-Oaklimer-McRaven, characterize the Pearl River floodplain and its tributaries below an elevation of approximately 260 feet above mean sea level. The Loring-Siwell-Urbanland and the Loring-Providence-Granada association characterize the uplands surrounding the Pearl River, at elevations of approximately 270 feet above mean sea level and above. The Casilla-Bond-Deerford association is the main soil type along the Pearl River in Hinds County. It consists of nearly level, well drained silty soils and poorly drained and somewhat poorly drained silty soils. These soils have a high content of sodium and are found on floodplains. The Reidtown-Oaklimer-McRaven association characterizes many of the tributaries of the Pearl River in Hinds County; e.g. Hanging Moss Creek, Purple Creek and Caney Creek. Soils consist of nearly level, moderately well drained and somewhat poorly drained silty soils. Soils of the Loring-Siwell-Urbanland complex are gently sloping to moderately steep, very strongly acid to medium acid, brown, silty and loamy. Loring-Siwell soils have a compact and brittle silt loam fragipan that restricts the rooting depth of plants and limits the amount of water available to plants. The Urbanland is mostly reworked or altered soil material that has no identifiable soil profile. Soils of the Loring-Providence-Granada association are moderately well drained and medium acid to very strongly acid. The solum (A and B horizons) is usually 45 to 70 inches in thickness. The fragipan is usually found at a depth from 18 to 35 inches and consists of a silt/loam or silty clay loam.

Within Rankin County soils along the floodplain between 240 and 260 feet above mean sea level belong to the Gillsburg-Ariel-Rosebloom association and the Jena-Velda-Rosebloom association. The Gillsburg-Ariel-Rosebloom association consists of a somewhat poorly, poorly and well drained silty soil. The Jena-Velda-Rosebloom association has well drained, loamy and silty soils and poorly drained silty soils. Two other associations are found in the uplands and terraces surrounding the Pearl River in Rankin County. These are the Kipling-Savannah-Pheba association and the Providence-Bude association. The Kipling-Savannah-Pheba association has nearly level to sloping, somewhat poorly drained soils that have a clayey subsoil and moderately well and somewhat poorly drained loamy soils. The soils of the Kipling-Savannah-Pheba association have a fragipan. The soils of the Providence-Bude association are moderately well and somewhat poorly drained, gently sloping to sloping and silty. Soils of the Providence-Bude association have a fragipan.

2.3.2.2 Proposed Diversion Channels - Areas traversed by both diversion channels are characterized by soils of the Jena-Velda-Rosebloom association. These have been described above.

2.3.2.3 Proposed Ponding Areas - Both ponding areas are characterized by soils of the Providence-Bude association. These have been described above.

2.4 Flora and Fauna

The flora and fauna of the Pearl River Basin are related to a variety of factors including the vegetational type, climate, physiography, and soil (Dice 1943). No major changes in the climate are believed to have occurred during the last several thousand years. An environment very similar to present conditions has apparently existed for the last 5000 years (Burden et al 1978).

The present flora and fauna of the study area may give insight to the utilization of past flora and fauna by aborigines. Although changes in the flora and fauna have occurred, these changes were not significant enough to alter the animals and plants available for aboriginal use in the last 1000 years. Many of the present species, both floral and faunal, were probably utilized by aboriginal inhabitants.

The exploitive potential of the Pearl River Basin could have easily provided the indigenous populations with an abundant source of faunal and floral food products. Floral and faunal resources were available throughout the year, although seasonality created diversity in the amount and species represented (Thorne 1977). The Pearl River provided an abundant source for fish, shellfish and smaller aquatic invertebrates and vertebrates.

The flora and fauna of the Pearl River Basin belong to the Austroriparian biotic province (Blair 1950). This large, diverse biotic province extends from southeastern Texas to the Atlantic Ocean. The province basically includes the Gulf Coastal Plain. The floral and faunal communities found in the Pearl River show a definite relationship to the geological and physiographic features.

2.4.1 Flora

The flora of the Pearl River Basin has been classified as Temperate Deciduous Forest (Oak-Deer-Maple Biome) by Shelford (1963). The temperate deciduous forest is a very large biome occupying a large portion of North America. This biome extends from the center of the Great Lakes region south to the Gulf of Mexico. The chief characteristic of the temperate deciduous forest is the predominance of trees with broad leaves which are shed each autumn. An understory of small trees and shrubs is usually also deciduous. The forest floor is covered with a dense layer of leaves in various stages of decay. The southern part of the forest also contains evergreen species.

Three large subdivisions of the deciduous forest are recognized by Shelford (Ibid). The Pearl River Basin is located in the southern and lowland forest of the temperate deciduous forest. Shelford has subdivided these into the oak-hickory and the magnolia-maritime regions. The oak-hickory region occupies a strip along the eastern edge of the oak-chestnut forest from New Jersey to Alabama, then westward across the Mississippi River into Arkansas and Texas and northward to central Illinois. The magnolia forest extends from South Carolina to near Houston and covers the northern two-thirds of Florida.

General characteristics of the temperate deciduous forest in the Pearl River Basin include tree species such as white oak (Quercus alba), blackoak (Quercus velutina), bitternut hickory (Carya cordiformis), southern red oak (Quercus falcata), laurel oak (Quercus laurifolia), sweetgum (Liquidambar

styraciflua), mockernut hickory (Carya tomentosa), redbay (Persea bordonia) and American Holly (Ilex krugiana). Also widely distributed in this area is a group of trees which include willows, cottonwoods, chokeberry, American elm (Ulmus americana), basswood (Tilia americana) and swamp chestnut oak (Quercus michauxii). There are about 50 deciduous shrubs and understory trees that are important in the forest along with about 15 evergreen shrubs and a dozen vines (Ibid). There are about twice as many herbs as shrubs and vines. These subordinate species support a rich fauna of insects and spiders. The understory trees include sassafras (Sassafras albidum), eastern redbud (Cercis canadensis), flowering dogwood (Cornus florida) and American hornbeam (Carpinus caroliniana). Important shrubs are pawpaw, spicebush, arrow-wood, black huckleberry, blueberry, witch-hazel and Virginia creeper (Ibid).

Within the temperate deciduous forest in the Pearl River Basin, numerous forest types have been recognized. Forest types is a descriptive term used to group stands of trees that have similar characteristics and development because of certain ecological factors (U.S.D.A.-S.C.S. 1979). In the northern portion of the study area, the Hinds and Rankin Counties area, four forest types are recognized. These forest types include: the oak-hickory, which is the most predominant; the loblolly-shortleaf pine; oak-gum-cypress and the oak-pine. Forest types in the Lawrence and Marion County area include: loblolly pine-shortleaf pine, which is the most predominant in this area; oak-gum-cypress; oak-pine; oak-hickory and longleaf pine-slash pine (U.S.D.A.-S.C.S. 1979).

Within the temperate deciduous forest, wetland areas are characterized by bald cypress (Taxodium distichum), tupelo gum (Nyssa aquatica), black willow (Salix nigra) and buttonbush (Cephalanthus occidentalis). Associated species within the wetland areas include bitter pecan (Carya aquatica), green ash (Fraxinum pennsylvanica), pumpkin ash (Fraxinus tomentosa), drummond red maple (Acerd drummondii), nuttall oak (Quercus nuttalli), cottonwood (Populus deltoides), overcup oak (Quercus lyrata), hackberry (Celtis laevigata) and water locust (Gleditsia aquatica).

The magnolia forest region of the temperate deciduous forest also includes the coastal areas of the Pearl River Basin. These coastal areas contain marshes and wetlands. Trees within the wetlands have already been described in this section. The type of grasses present in the marshes and wetlands is dependent upon the salinity of the water. Wire grass, coco, three-cornered grass, yellow cut grass, bull tongue, pickerel weed and wild mullet characterize the vegetation in the brackish marshes. The fresh marshes are characterized by lakegrass, bull grass and sawgrass (Beavers 1978). Few of the marsh plants are significant food resources for aborigines. A few exceptions known are the root of the bull tongue and the seeds of water lilies which were eaten by the Chitimacha Indians to the east of the alignment area (Burden, et al 1978). Most of the vegetation associated with the marshlands does not constitute available food source for human exploitation, but the vegetation does provide numerous ecological habitats for the fauna. Also, vegetation of the marshes and wetlands could have been utilized by aborigines for ritual, subsistence and craft activities.

In addition to providing numerous habitats for fauna, the flora of the Pearl River Basin represented an immense food source for aboriginal man and

animals. Harvestable staples include nuts, seeds and fruits. General vegetation was also available as a food source.

The nuts of various trees are among the more extensively exploited natural crops available to both aboriginal man and the fauna. Nuts as food stuffs are rich in fats and proteins. Nuts are particularly attractive because of the longterm availability (Martin et al 1961). Among the more important nut-bearing trees that could have been available to aboriginal populations in the Pearl River Basin were the white oaks (Quercus alba), swamp chestnut oaks (Quercus michauxii), southern red oaks (Quercus falcata), laurel oaks (Quercus laurifolia), bitternut hickory (Carya cordiformis), pignut hickory (Carya garbra) and black walnut (Juglans nigra).

The seeds of various trees, shrubs and weeds are more important as a food source to animals than to man. However, Harris (1968) notes that many of the understory plants that occur in the Pearl River Basin are a source of food for both man and animals. Martin et al (1961) notes that seeds make up practically the entire diet of some common species of birds and small mammals. Seeds generally mature in late summer or early fall. However, a portion of the crop may remain available for use later in the season either on the plants or on the ground. Weeds, because of their abundant seeds, are more valuable as wildlife foods than flowers (Thorne 1977). The amount of seed produced by various plants is tremendous. Species of the pigweeds (Amaranthus) are known to bear as many as 100,000 seeds per plant. Many important wildlife foods are derived from various types of weeds such as pigweed (Amaranthus retroflexus), ragweed (Ambrosia artemisiifolia), crabgrass (Digitaria sanguinalis) and species of smartweed (Polygonum).

The vegetative parts of many plants constitute the major part of the diet of many birds and mammals. Martin et al (1961) notes that all aerial parts of grasses and small herbaceous plants are eaten by hoofed browsers. The leaves, stems, tubers and seeds of aquatic plants are consumed by waterfowl, muskrats, beaver and occasionally by deer.

2.4.2 Fauna

The faunal community of the Pearl River Basin includes aquatic, semi-aquatic and terrestrial animals. The following discussion of the fauna includes both the invertebrate and vertebrate components.

2.4.2.1 Invertebrates - A great diversity of invertebrates are present and abundant in the Pearl River Basin. However, only those invertebrates which may have been utilized by aboriginal inhabitants are discussed. Swanton (1946) notes that mollusks (pelecypods and gastropods) and crustaceans were frequently used by Southeastern Indian tribes as a source of food.

There are approximately 18 species of pelecypods and gastropods found in the Pearl River and its tributaries (U. S. Army Corps of Engineers 1975). Freshwater mussels and gastropods have long been recognized as a faunal resource for aboriginal populations (Thorne 1977). However, the importance of mussels to prehistoric subsistence economy has probably been over-estimated. Previous researchers in the Mississippi region have noted the widespread and extensive use of mussels. However, the evaluation of the mussels' importance to aborigines has largely been uncritical and has been based on quantity

alone. Parmalee and Klippel (1974) report that the nutritional value and caloric content of mussels are very low. Therefore, freshwater mussels should be considered a minor food supplement or famine food.

2.4.2.2 Fishes - The Pearl River and its numerous tributaries as well as lakes and ponds represent important locations for the aboriginal use of fish. The Pearl River Basin probably supports around 100 species of fish (U.S. Army Corps of Engineers 1975). Representative families include the Lepisosteidae (gars), Amiidae (bowfins), Anguillidae (eels), Clupeidae (herrings), Esocidae (pickerels), Cyprinidae (minnows), Catostomidae (suckers), Ictaluridae (catfishes), Aphredoderidae (pirate perches), Percichthyidae (temperate basses), Cyprinodontidae (topminnows), Poeciliidae (live bearers), Atherinidae (silversides), Centrarchidae (sunfishes and basses), Ellassomatodae (pygmy sunfishes), Percidae (perches) and Sciaenidae (drums).

With the diversity and abundance of fishes in the rivers, streams and lakes, aborigines could have easily utilized the fishes. Among the larger species of fish in this area are: several species of gar (Lepisosteus osseus, Lepisosteus oculatus, Lepisosteus platostomus, and Lepisosteus spatula) and several species of catfish (Ictalurus punctatus, Ictalurus furcatus, Ictalurus natalis, Ictalurus nebulosus, Ictalurus melas and Pylodictis olivaris). Other common fish that could have served as a food resource for aboriginal inhabitants include: white bass (Morone chrysops), yellow bass (Morone mississippiensis), white crappie (Promoxis annularis), black crappie (Pomoxis nigromaculatus), green sunfish (Lepomis cyanellus), spotted sunfish (Lepomis punctatus), longear sunfish (Lepomis megalotis), bluegill (Lepomis macrochirus), red ear sunfish (Lepomis microlophus), largemouth bass (Micropterus salmoides), spotted bass (Micropterus punctulatus) and sauger (Stizostedion canadense).

Swanton (1946) described several techniques by which Indians in the southeastern United States caught fish. Some or all of these techniques could have been used by aborigines in the Pearl River Basin. These techniques include hook and line, weirs, nets, traps, dragging, bow and spear and poisoning. These techniques are briefly described below:

1) Hook and line, employing bone and live bait (i.e. worms, grasshoppers or crayfish), may have been employed as a bank fishing technique. Families that could have been caught by this technique include the catfishes, sunfishes (bream, bass and crappie) and pickerels.

2) Weirs, made of stone and/or reeds, may have been built during flood stages of a stream or river; they would then trap the fishes as the water level dropped. Weirs may also have been built as "corrals"; the Indians would wade in the water and drive the fish into the weir, where they would be trapped. Fishes most susceptible to the technique include the suckers, sunfishes and catfishes.

3) Nets known to the Indians included two types, active and passive. Active nets were physically moved through the water to entrap sunfishes, suckers and catfishes. Passive nets were maintained in one position by weights or rope. Suckers, gar, catfishes, temperate basses and sunfishes were most likely to be caught in this way.

4) Traps, such as slat traps and mazes, were constructed and set in place so that a fish could enter but not exit. Fishes susceptible to this technique include the catfishes, suckers and sunfishes.

5) Dragging utilized a heavy object, such as a log, that was physically pulled through the water so that it disturbed the bottom layer. Fishes along the bottom swam from the disturbance and were netted. Fishes caught in this way included the suckers and catfishes.

6) Bow and spear fishing required that the fish be seen; this restricted the use of this technique to the catching of top water and shallow water fishes. These include the gars, sunfishes and suckers.

7) Poisoning may have been accomplished either by blocking a stream or by poisoning an isolated hole or sink. Horse chestnut, devil's shoestring and black walnut are some of the natural poisons utilized. As the fish floated to the top, the Indians would gather them by hand or with baskets. Fishes susceptible to this include gars, bowfins, minnows, suckers, herrings, catfishes and sunfishes.

2.4.2.3 Amphibians - There are approximately 30 species of amphibians in the Pearl River Basin (Conant 1958). Families that may occur include Proteidae (mudpuppies), Amphiumidae (amphiumas), Sirenidae (sirens), Ambystomidae (mole salamanders), Salamandridae (newts), Plethodontidae (lungless salamanders), Pelobatidae (spade-foot toads), Bufonidae (toads), Hylidae (tree frogs), Microhylidae (narrow-mouthed toads) and Ranidae (tree frogs). Thorne (1977) reports that frog legs are generally known as a good source of food, and in aboriginal times, salamanders were also eaten. Edible and larger frogs that would have been found in the Pearl River Basin include the bullfrog (Rana catesbeianus), the bronze frog (Rana clamitans) and the leopard frog (Rana pipens). The leopard frog is the most abundant in this area.

2.4.2.4 Reptiles - Approximately 60 species of reptiles are thought to occur in the Pearl River Basin (Conant 1958). Half of the 60 species are represented by snakes, while the remainder consist of lizards, turtles and alligators. Representative families include the Crocodylidae (alligators), Chelydridae (snapping turtles), Testudonidae (box and water turtles), Trionychidae (softshell turtles), Iguanidae (iguanids), Teiidae (whiptails), Scincidae (skinks), Anguidae (glass lizards), Colubridae (colubrids), Elapidae (coral snakes) and Viperidae (pit vipers). Of the reptiles, the turtle would have been the most advantageous for a food resource because of their size, meat per kill, and ease in collecting. The common snapping turtle (Chelydra serpentina) is found in rivers, ponds and muddy areas throughout the Pearl River Basin. The common snapping turtle reaches weights up to 20 pounds, while the alligator snapping turtle (Marcrochelys temmicki) may reach weights up to 200 pounds (U. S. Army Corps of Engineers 1975). The painted turtle (Chrysemys picta) is abundant around ponds and streams and is easily captured. The box turtle (Terrapene carolina) is strictly terrestrial, abundant and easily captured. Turtle eggs and alligator could have also been utilized by aborigines in the study area.

2.4.2.5 Birds - Approximately 100 species of birds are known to occur in the Pearl River Basin. Some of the species are permanent, while others are

migratory. The majority of the species are the small perching variety (Thorne 1977). Many of these species are not considered adequate as a food resource. However, many of the waterfowl could have been exploited as a food source. Waterfowl found in the area include wood ducks (Aix sponsa), mallards (Anas platyrhynchos), black duck (Anas rubripes), bluewinged teal (Anas discors), egret (Casmerodius albus), great blue heron (Ardea herodias), green heron (Butorides virescens), American bittern (Botaurus lentiginosus) and the American coot (Fulica americana).

The raptorial birds, such as vultures, hawks and eagles, were probably present, but they probably were not a substantial food source. Two other birds that were probably exploited as a food resource were the passenger pigeon and the wild turkey. Passenger pigeons (Ectopistes migratorius) were present in Mississippi in large numbers up until historic times (Ibid). Due to their large numbers, the pigeons were probably utilized as a food source. Wild turkey (Meleagris gallopavo) was once much more abundant in this region and could have been an important food source. These large birds have been reported as representing a substantial portion of the faunal remains recovered from archeological sites in the southeastern United States (Ibid). Common hunting techniques for birds included various types of traps and bolo hunting.

2.4.2.6 Mammals - Due to their size and availability, many of the species of mammals could have supplied a dependable food source for the indigenous population in the Pearl River Basin. Approximately 50 species of mammals occur naturally in the study area and adjacent lands (Lowery 1974). Families which may occur in the study area include Didelphidae (opposums), Soricidae (shrews), Talpidae (moles), Vespertillinoidea (vespertilionid bats), Molossidae (free-tailed bats), Leporidae (hares and rabbits), Scuridae (squirrels), Geomyidae (pocket gophers), Castoridae (beavers), Capromyidae (coyote and hutia), Cricetidae (New World rats and mice), Canidae (dogs and wolves), Ursidae (bears), Felidae (cats), Procyonidae (raccoons), Mustelidae (weasels, minks and skunks) and Cervidae (deer).

Of these families, more important species that could have served as dependable food sources include the opossum (Didelphis marsupialis), cottontail (Sylvilagus floridanus), swamp rabbit (Sylvilagus aquaticus), gray squirrel (Sciurus carolinensis), fox squirrel (Sciurus niger), beaver (Castor canadensis), muskrat (Ondatra zibethica), red fox (Vulpes fulva), gray fox (Urocyon cinereoargenteus), raccoon (Procyon lotor), bobcat (Lynx rufus), mink (Mustela vison) and the white-tailed deer (Odocoileus virginianus). Thorne (1977) notes several other mammals which are now extinct or threatened in this region that could have served as food sources. These include the bison (Bison bison), red wolf (Canis rufus), Florida panther (Felis concolor coryi) and the black bear (Ursus americanus). The woodland bison probably occurred only in very small numbers and was probably not a significant source of food. Of all the mammals present, the white-tailed deer probably represented the primary source of meat for aboriginal inhabitants (Parmelee and Klippel 1974). Since deer are browsing animals which feed primarily on leaves, twigs, acorns and fruits of trees and shrubs, they were probably extremely abundant due to plentiful food supply in this region. In addition to being abundant in this area, deer also represented an excellent consumption item in terms of amount of meat per kill (Thorne 1977).

3. PREVIOUS INVESTIGATIONS

3.1 Previous Archeological Investigations

3.1.1 Early Investigations

During the period 1840-1914, the Classificatory-Descriptive Period in American archeology emerged. Throughout this era, according to Willey and Sabloff (1974:42), there was a "steady increase in the discovery and description of antiquities as the United States expanded westward and as the white man penetrated into other parts of the North and South American continents." Most of the archeology conducted during this period was sponsored by the government, universities, museums, and scientific societies (Ibid).

In the 19th century, there are no references to scientific exploration in the Pearl River Basin. Eastern archeologists were primarily concerned with the mounds of the Ohio and Mississippi Valleys and surrounding areas (Ibid: 43). Consequently, it was those areas containing the largest concentration of mounds which received the most attention. The work of Squier and Davis (1848), who travelled throughout the Mississippi Valley recording and excavating mounds for the newly-founded Smithsonian Institution, is typical of the period.

During the early part of the 20th century, the study area was included in that part of the South referred to by James A. Ford (1936:4) as "practically a virgin field."

The first attempt at describing the prehistory of Mississippi was made by Brown (1926). His book, entitled Archeology of Mississippi, presented data obtained from collectors and field trips throughout the state. Although no sites in the study area are mentioned, several references to Hinds and Madison Counties are given. In addition, an overview of mounds and types of artifacts found in Mississippi is presented.

An archeological survey of Mississippi was initiated by the Mississippi Department of Archives and History in 1927 (Ford 1936:1). Under the leadership of Moreau B. Chambers and James A. Ford, this work was carried out between 1927 and 1935.

Based on information collected during the statewide survey of Mississippi, the first broad outline of the chronology of the Lower Mississippi Valley was constructed. At that time, no other chronology applicable to the study area had been formulated. According to Gibson (1982:personal communication) Ford's outline gave strength and direction to archeology in the Southeast. Ford (1938) formally presented and explained his chronological model in detail in A Chronological Method Applicable to the Southeast.

3.1.2 WPA Era

In the 1930's, the Works Progress Administration (WPA) sponsored archeological work throughout the United States. Unemployed workers were hired to work as crew members on excavations and archeological surveys in order to

alleviate the chronic unemployment sweeping the country. These federally-backed work forces provided archeologists with the manpower to collect large amounts of data. As a result, many important archeological questions were addressed.

In Mississippi, WPA crews located and recorded early Indian and Spanish trails (Work Projects Administration 1940a), Indian mounds and sites (Work Projects Administration 1940b, 1940c), and major prehistoric and historic sites of the state (Work Projects Administration 1940d). Additional data concerning archeological sites in Mississippi were gathered and assembled in folders by WPA workers. Much of this information was never published.

3.1.3 Recent Investigations

It is during this period that salvage or contract archeology came into being. A change in archeological purpose occurred with emphasis now placed on salvaging data from areas designated for destruction (projects specific) instead of obtaining information from wide areas solely for the acquisition of knowledge. The vast majority of archeological work conducted during this period falls under the heading of salvage or contract archeology.

The 1960's marked the beginning of modern archeology in America, referred to by Willey and Sabloff (1974:178) as the Explanatory Period (1960-present). The introduction of revolutionary concepts such as "systems theory" and "logico-deductive reasoning," as well as a re-emergence of "evolutionary theory," characterize the period.

Although archeological activities, especially salvage work, increased rapidly in many areas of the country in the 1960's, very little field work was conducted in the basin during this time.

The Mississippi Archaeological Association was organized in 1966. A bulletin, Mississippi Archaeology (formerly Mississippi Archaeologist), is published semi-annually, and a newsletter, Newsletter From The President's Desk, appears bi-monthly.

3.1.3.1 Dry Impoundment Area

The first documented archeological work conducted in the Dry Impoundment Area was the Natchez Trace Survey (Jennings 1940, 1944, 1946). This project was conducted intermittently during the periods 1939-1942 and 1945-1947 by Jesse D. Jennings. According to Jennings (1982:personal communication), the survey was not intensive and no shovel testing was conducted. Four sites in the Dry Impoundment Area (22Md509, 22Md513, 22Md514, 22Md515) were recorded (Site Records, MDAH).

The first salvage operation conducted in the Dry Impoundment Area was a survey, accompanied by limited testing, of the proposed Pearl River Reservoir (now known as Ross Barnett Reservoir) by Robert L. Rands (1958). In June of 1958, Rands surveyed portions of Hinds, Leake, Madison, Rankin, and Scott Counties. Site 22Ra507, in the Dry Impoundment Area, was recorded during this survey.

Robert S. Neitzel (1966) conducted a literature search of the cultural resources of the Pearl and Big Black drainages. During this study he learned of a site in the Dry Impoundment Area which had been discovered through a 1946 Pearl River Basin Study conducted by the National Park Service. Neitzel partially completed a site form for this site and recorded it as 22Md516 (MDAH records, Jackson).

The amount of archeological work conducted in the Pearl River Basin in the 1970's increased markedly over the previous decade. Copious reports and articles dealing with the archeology of the state were published and there was a rise in the number of salvage operations in the area. During this time, overviews of Mississippi archeology were written by Marshall (1973) and McGahey (1975).

A cultural resources survey along proposed Highway 25 between Highway 471 and Highway 483 at Ludlow, Scott County, Mississippi was conducted in 1974 by the Mississippi State Highway Department (1978). A literature search revealed no known cultural resources within the proposed right-of-way. No sites were recorded during the survey and no standing structures were observed. It was noted that the highway will cross an imaginary boundary line which was established by the Treaty of Doak's Stand in 1820. It was concluded that no important cultural materials will be affected by the completion of this project.

A cultural resources survey of proposed Mississippi Highway 25 from Ludlow to Wiggins, Leake County, Mississippi was conducted in 1977 by the Mississippi State Highway Department (Hyatt 1977). A literature search revealed no known cultural resources within the proposed right-of-way and no sites were recorded during the survey. It was concluded that no important cultural resources will be affected by the completion of this project.

A cultural resources survey of proposed campground facilities at Coal Bluff Park, Scott County, Mississippi was conducted in 1978 by Mark DeLeon (1978). A literature search revealed no known cultural resources within the survey area and no sites were recorded during the survey. It was concluded that no important cultural resources will be affected by the completion of this project.

A cultural resources survey of a proposed substation area and transmission lines, Scott and Leake Counties, Mississippi was conducted in 1980 by Robert Thorne and Kim Curry (Thorne 1980). Ground reconnaissance augmented by shovel testing revealed no cultural materials and no standing structures were observed. It was concluded that no important cultural resources will be affected by the completion of this project.

A cultural resources survey of three borrow pits in Leake County, Mississippi was conducted in April, 1981 by Robert Thorne and Kim Curry (Thorne 1981). A literature search revealed no known cultural resources within the survey area. Ground reconnaissance augmented by shovel testing revealed no cultural materials and no standing structures were noted. It was concluded that no important cultural materials will be affected by the completion of this project.

A cultural resources survey of approximately 100 acres in Leake County was conducted in August, 1981 by Jim Lauro (1981) for the Pearl River Basin Development District. Ground reconnaissance augmented by shovel testing revealed no cultural materials within the survey area. It was concluded that no important cultural materials will be affected by the completion of this project.

In addition to the foregoing, site 22Md565 (located within the Dry Impoundment Area) was reported anonymously to the Mississippi Department of Archives and History. No additional information is available (MDAH records, Jackson).

3.1.3.2 Pearl River In The Vicinity of Jackson

The first documented archeological work conducted in the project area in the vicinity of Jackson was Rands' (1958) survey of the proposed Pearl River Reservoir. Rands recorded sites 22Hi510, 22Hi512, 22Ra503, 22Ra504, 22Ra508, and 22Ra546 within the boundaries of the project area in the vicinity of Jackson.

In the fall of 1958, Robert L. Rands (1959), along with William T. Sanders of the University of Mississippi, followed up the Pearl River Reservoir survey by conducting additional excavations at the Wills Site (22Hi512) in Hinds County, Mississippi. The presence of Poverty Point remains and pottery suggests that the site was occupied over a considerable time span. Rands also believes that cultural affiliations of this site may have been especially strong to the east, rather than with the closely adjacent Mississippi Valley.

Paul Mangum (1963) wrote a B.A. thesis entitled An Archeological Survey of the State of Mississippi East of the Lower Mississippi River Valley which includes portions of Hinds and Madison Counties. Although no sites in the project area are discussed, 22Hi512 (and labelled as Wills) is depicted on his map.

In 1969, an informant survey designed to locate unrecorded archeological sites in Hinds County was conducted by Connaway and McGahey (1970). Advertisements were placed in local newspapers and interviews were conducted with area collectors. Sites located were investigated and recorded. No sites were discovered in the project area.

The amount of archeological work in the Pearl River Basin in the 1970's increased markedly over the previous decade. Copious reports and articles dealing with the archeology of the state were published and there was a rise in the number of salvage operations in the area. During this time, overviews of Mississippi archeology were written by Marshall (1973) and McGahey (1975).

In 1980, Donald Crusoe and James Lauro (1980) conducted a cultural resources survey of the I-20 Pearl River overpass in Rankin County, Mississippi. One site, 22RA527, was relocated during the survey. Prior to construction of I-20, the site apparently consisted of a small burial mound and a village. Modern construction activities have obliterated any traces of the mound and the village midden is practically destroyed. It was recommended that the entire site be stripped for settlement pattern features allowing for total retrieval of all remaining archeological information.

An archeological reconnaissance of four rights-of-way on the west bank of the Pearl River prior to land clearing activities was conducted by Don Crusoe and Jim Lauro of the Mississippi Department of Archives and History in October of 1980. Several high probability areas were outlined and it was recommended that these areas be checked in the future as well as certain areas not visited during this survey (Lauro 1980). Two areas of cultural debris were observed. No information concerning these sites was provided.

In 1981, the Pearl River Jackson Prairie Project, a two phase survey of the archeological and historical resources of the Pearl River drainage (Hinds, Madison, and Rankin Counties) was initiated by the Mississippi Department of Archives and History. During Phase I, selected areas were surveyed, relic collectors interviewed, and artifact collections documented. The field work for Phase I has been completed, and no sites in the project area were recorded. It is anticipated that the results from Phase I will provide enough information for the establishment of a tentative chronology of the Pearl River Basin and outline the kind of work needed to be conducted during Phase II of the project. It is anticipated that Phase II could last as long as two years (James Lauro 1982: personal communication).

Dottie Gibbens and Jerry Nielson (1981) conducted a cultural resources survey of sections of proposed flood control areas adjacent to Pearl River in Jackson, Mississippi. The Highway 25 bridge and the Illinois Central Gulf Railroad bridge were examined and assessed. One standing structure and the concrete foundations of another were noted. Two areas (CE1 and CE2) yielding prehistoric materials were recorded. It was later noted that these areas correspond to previously recorded site 22Ra546.

An extensive literature search concerning the Pearl River was conducted by Heartfield, Price and Greene, Inc. (1982). This study documented all cultural resources in a one mile wide corridor from the Ross Barnett Reservoir to the mouth of the river. A discussion of the culture sequence of the Pearl River Basin from the Paleo-Indian era to the present is included.

In addition to the foregoing, one site within the project area, 22Hi562, has been reported anonymously to the Mississippi Department of Archives and History. There is no information other than a generalized location.

3.2 Previous Historical Investigations

Although a considerable amount of historical research has been conducted for the Pearl River Basin in general, no projects relating specifically to the Dry Impoundment Area or Pearl River in the Vicinity of Jackson have been carried out. Therefore, both study areas are combined in this section.

The earliest accounts of the Pearl River Basin were made by explorers who visited the area in the 17th and 18th centuries. Valuable information was compiled and preserved in the form of maps and journals. Some of the early explorers to visit the Pearl River Basin were d'Iberville in 1699, Penicaut in 1699, Bienville in 1699, Roullet in 1732, and Bartram in 1777.

Most of these explorers kept diaries or journals of their travels and experiences, providing researchers with an extremely important source of information concerning the New World. Journals by Penicaut (McWilliams 1953),

Roulet (Rowland and Sanders 1927), and Bartram (Van Doren 1955), for example, have contributed greatly to a better understanding of the early history of the Pearl River Basin.

Some of the early explorers and traders used the information they collected on their expeditions to compile histories and geographies of the areas they visited. Adair (1775), who spent time among the Choctaw Indians of the upper Pearl River, serves as an example.

In the 19th century, as knowledge of Mississippi increased, numerous works concerning the history of the state appeared. Examples of these early history books are provided by Hall (1801), Claiborne (1880), Lowry and McCardle (1891), and the Goodspeed Publishing Company (1891).

Historical scholarship concerning the study area expanded considerably in the 20th century. Some of the early histories of this period dealing with Mississippi include Riley (1902), Cuming (1904), Rowland (1907, 1925), Ethridge (1938), and Snyder and Bennett (1939).

Theses and dissertations often provide valuable information for researchers. Although none dealing specifically with the project area has been written, several works relevant to the general area should be mentioned. These works deal with transportation in Mississippi before 1860 (Robertson 1961), railroads (Cotterill 1922, 1924; Estaville 1973), extinct towns in Mississippi (Adkins 1972), and military operations in and around Jackson, Mississippi during the Civil War (Adams 1950).

The Works Progress Administration (WPA) was very active in Mississippi during the 1930's. During the Historical American Buildings Survey (HABS), a WPA project, teams of architects and photographers recorded and photographed buildings in towns all over the United States. A lack of imposed criteria as to which towns were selected resulted in a bias of the resultant sample (Bill Allen 1981: personal communication). No buildings in the Pearl River Basin were recorded.

Another WPA project involved the compilation of guidebooks to the various states published under the "American Guide Series." Under the authorship of the Federal Writers' Project of the Work Projects Administration, a guide to Mississippi (1936) was written.

The WPA also sponsored large amounts of historical research in Mississippi, during the years 1936-1942. Most of the information collected during this period was never published and remains in the form of typed and handwritten manuscripts in libraries and other institutions throughout the state. Subjects covered include county histories, folklore, Indians, archeology, architecture, transportation, towns, and pictorial histories.

County histories written under WPA sponsorship include Hinds (Work Projects Administration 1936-1942a), Leake (Work Projects Administration 1936-1942b), Madison (Work Projects Administration 1936-1942c), Rankin (Work Projects Administration 1936-1942d), and Scott (Work Projects Administration 1936-1942e). Folklore of Hinds (Federal Writers' Project 1936a), Madison (Federal Writers' Project 1936b), and Rankin (Federal Writers' Project 1936c) counties was researched by the WPA.

Several translations of important journals and histories, written by early French explorers, have been published in the 20th century. Works which have been translated into English include the writings of Penicaut (McWilliams 1953), d'Iberville (Crouse 1972), and Roulet (Rowland and Sanders 1927).

Recent studies have dealt with aspects of the economic history of the study area. For example, the role played by railroads in the development of Mississippi has been examined by Cotterill (1922, 1924), Black (1952), Turner (1953), and Estaville (1973).

Research concerning the city of Jackson has been conducted by the Jackson, Mississippi Chamber of Commerce (1929), Hurt (1939), McCain (1953), Mills (1966), Salter (1979), Powell (n.d.), and the Mississippi Historical Society (n.d.a).

Additional county histories have been written for Hinds (Rowland 1922; Jackson Mississippi Chamber of Commerce 1929; Ruff 1941; Bacon 1955, Leake (Mississippi Historical Society n.d.b), Madison (Anderson 1967), Rankin (Jackson Mississippi Chamber of Commerce 1929; Silbernagel 1966), and Scott (Amis 1934; Brown 1967; Mississippi Historical Society n.d.c.).

Civil War military operations in Jackson and vicinity were documented by Adams (1950) and cemetery records for Rankin County were published by the Rankin County Historical Society (1980).

With the rise of the historic preservation movement in the late 1960's, Mississippi began a systematic assessment of its historical resources. In 1969, a comprehensive architecture survey of the state of Mississippi was initiated by the Mississippi Department of Archives and History in Jackson, Mississippi. This work is being conducted under Survey and Planning Grants from the Department of the Interior as authorized by the National Historic Preservation Act of 1966, which authorized the expansion of the National Register to include buildings of state and local interest. At the present time none of the counties in the study area has been completely surveyed (Bill Allen 1981:personal communication), and no sites on the National Register of Historic Places have been recorded in the study areas.

Archeological and historical resources of the Pearl River Basin in Mississippi were assessed under the Pearl River Comprehensive Basin Study (1970) prepared by the Southeastern Region of the National Park Service. No sites were recorded in the project area.

In 1975, the Mississippi Department of Archives and History (Bailey and Lowrey, editors 1975) published a comprehensive state plan for historic preservation. This plan addresses both prehistoric and historic cultural resources. No resources in the project area were included.

In December, 1980, a comprehensive bridge survey of the state of Mississippi was initiated by the Mississippi Department of Archives and History, Jackson. This survey was designed to record all bridges in the state built before 1930. At the present time only state-maintained bridges have been recorded. None of these bridges cross the Pearl (Bill Wright 1981:personal communication).

In 1981, an extensive literature search concerning the Pearl River Basin was conducted by Heartfield, Price and Greene, Inc. (1982). This study documented known cultural resources in a one mile wide corridor south of the Ross Barnett Reservoir to the mouth of the river. A discussion of the culture sequence of the Pearl River Basin from the Paleo-Indian era to the Present is included.

4. CULTURE SEQUENCE

4.1 Prehistoric Sequence

No archeological sequence has been formulated specifically for the Pearl River Basin. There are, however, a number of chronologies which are relevant to an understanding of the culture sequence of the project area. Some of these are for the Lower Mississippi Valley (Phillips 1970; Brain 1971), the state of Mississippi (Marshall 1973; McGahey 1975), and the Southeastern United States (Ford 1938; Haag 1971, 1978; Walthall 1980).

Basically, the project area can be divided into three major eras. These are Paleo-Indian, Archaic (or Meso-Indian), and Post-Archaic (or Neo-Indian). Figure 4-1 depicts a suggested culture sequence for the project area.

4.1.1 Paleo-Indian Era (10,000 BC - 6000 BC)

The term Paleo-Indian refers to those prehistoric populations which inhabited North America from the end of the Pleistocene epoch through the early part of the Holocene epoch. The population during early Paleo-Indian times is generally viewed as consisting of small groups of wide-ranging nomads following herds of megafauna. They lived in temporary campsites and left few traces of their occupation.

As these species of big game became extinct, an economic shift to dependence on local flora and fauna occurred. It is during this time that these nomadic populations became more settled in localized areas. With localization came the first development of diverse cultural patterns, and these are reflected in the late Paleo-Indian artifact assemblages.

Exactly when man first arrived in North America is still quite uncertain. Most archeologists are in agreement that the earliest migrations to the Americas must have been by way of the Bering Strait between Siberia and Alaska, an area referred to as Beringia (Martin and Plog 1973:57).

There have been at least two instances in which the water level of the Bering Strait was low enough to permit overland migration from Asia into North America. According to Fagan (1975:87), this was possible between 50,000 and 40,000 BC and between 27,000 and 8000 BC.

Most archeologists agree that there are no firm data to confirm the presence of man in the New World earlier than 10,000 to 15,000 years before present (BP). However, new evidence is constantly being presented which suggests a much earlier time frame for man's arrival in North America.

At Old Crow Flats in Alaska, for example, a caribou foreleg bone was uncovered. It had been shaped into a toothed hide scraper or "flesher." Associated with it was a large deposit of cracked/split caribou bones which was radiocarbon dated to about 27,000 BP (Irving and Harrington 1973).

Radiocarbon dates of 17,000 and 23,000 years BP have been obtained from skeletal remains in California (Campbell 1979:395), and charcoal from hearths at the Lewisville Site in Texas has been dated in excess of 37,000 BP (Wormington 1957:58-59).

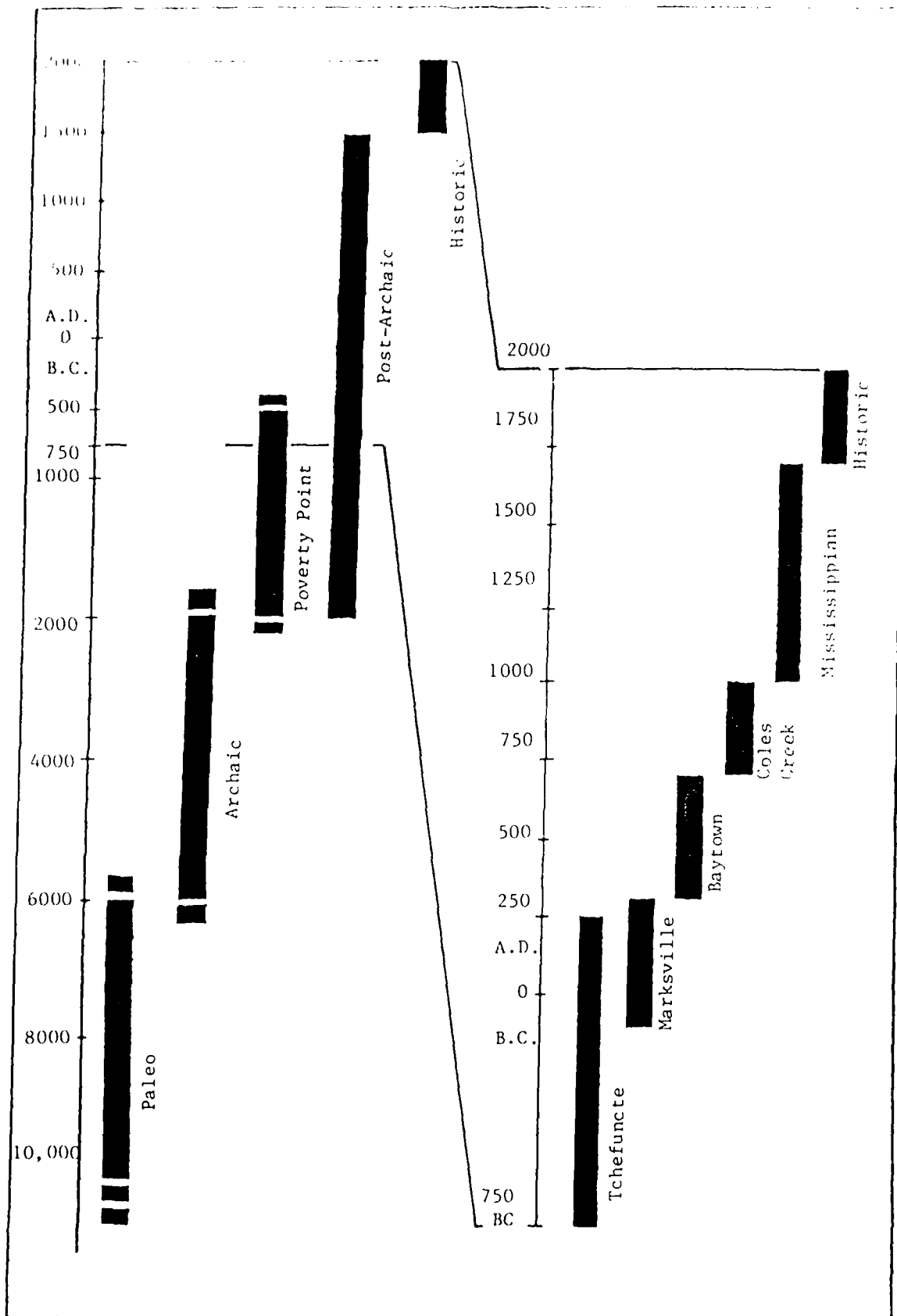


Figure 4-1. Pearl River Basin Cultural Sequence.

The data base for the Paleo culture of North America is very incomplete. Available data consist of a few habitation sites, a larger number of kill sites and butchering stations, and numerous surface finds on deflated surfaces where they are associated with other artifacts of all ages, and in isolated areas without associations of any kind. According to Willey and Phillips (1958:86), the nature of the evidence has resulted in a one-sided view expressed in the frequent designation "early-hunting cultures."

The scenario which has gained acceptance among the archeological community is one of small bands of hunters and gatherers following herds of big game animals during their seasonal migrations and ranging over a wide area as a result. A lack of contrary evidence, research designs formulated to test alternate hypotheses, and scientific techniques for recovering and analysing fragile remains such as plant material and fossil pollen have contributed to the connotation of Paleo-man as a big game hunter.

Evidence identifying man as a hunter of Pleistocene megafauna has not been found in the Southeast. Recent investigations have demonstrated that in the southeastern United States Paleo groups were probably placing more emphasis on the exploitation of regional small game in combination with plant gathering and less dependence on megafauna.

Lithic assemblages of southeastern Paleo groups are virtually the same as those found on the Great Plains and in the Northeast. Kill sites are rare in the Southeast and some distributional studies have suggested that there was a concentration on river valley resources. These data have been taken by Muller (1978:283-284) to suggest a possible early move by Paleo groups in the Southeast toward the highly efficient gathering economy usually associated with the following Archaic era.

Byrd and Neuman (1978:10) argue that Paleo populations in the Southeast probably were not exclusively, or even primarily, meat eaters. They point out that given the fact that man is basically an omnivore and the fact that fruits, nuts, tubers, and berries were available and easily gathered, "it seems reasonable to suppose that some vegetal foods were eaten" (Ibid). They suggest that Paleo-Indian groups in the Mississippi Valley could have followed the pattern so prevalent in other ethnographic examples; that is, that the men were hunters, and the gathering of plants could have been an activity of women, young children, and aged persons.

Most Paleo sites in the Southeast are limited to scattered projectile points discovered out of context on the surface of plowed fields and other disturbed surfaces. Clovis points represent the oldest recognized Paleo-Indian occupation in the area. Folsom points have not been found. Cumberland points, a type which has been demonstrated to follow Clovis chronologically, are found throughout the Southeast, especially in the Tennessee and Ohio River Valleys (McGahey 1975:11).

Toward the end of the Paleo-Indian era, the Dalton Complex emerged in many parts of the Southeast. In some areas, Dalton sites appear to be more widely distributed than Clovis locations (Morse 1973). Muller (1978:285) believes that the Dalton Complex in the Southeast was a development of the earlier Paleo-Indian pattern in response to the particular needs of the Southeastern environment. He also feels that the groups in Dalton times utilized a broad

range of animals with a major emphasis on the procurement of deer. A wide variety of plant foods was probably eaten as well (Ibid).

Mississippi Department of Archives and History site forms do not always reflect the cultural components of sites, making it impossible at times to determine the cultural affiliation of particular sites. No sites dating to this era have been identified within the Dry Impoundment Area or the study area in the vicinity of Jackson.

4.1.2 Archaic Era (6000 BC - 2000 BC)

The Archaic era in the Southeast is not clearly understood by archeologists. In spite of extensive excavation of Archaic sites throughout the Southeast, knowledge of the fundamentals of Archaic subsistence patterns is still lacking (Haag 1978:3). Similarly, the Archaic era is the least known interval in the prehistory of the Lower Mississippi Valley (Brain 1971:23).

The Archaic era was a time of great change. With the end of the Pleistocene, warmer temperatures fostered climatic changes which resulted in different floral and faunal communities and a rise in the level of the sea.

As Pleistocene megafauna gradually became extinct, human subsistence patterns shifted toward a greater dependence on the wide variety of woodland and riverine resources which were available. Settlements became more permanent and the exploitation of diverse resources resulted in specialized artifact assemblages.

An example of this temporal and geographical specificity is seen in the emergence of a greater variety of projectile point forms. According to McGahey (1975:12-13), the increased diversity of projectile point styles manufactured during the Early Archaic is indicative of more regional variation than was characteristic of the Paleo-Indian era. He argues that Paleo-Indian point types are found over much of North America, while Early Archaic types are much less widely distributed.

Some archeologists believe that the Archaic era begins with the end of the fluted point tradition. McGahey (Ibid) states that due to the presence of many typologically intermediate forms between Clovis points, for example, and Early Archaic types, such a distinction would be completely arbitrary. He also mentions that the same flaking techniques were practiced entirely throughout the Early Archaic and other tools such as knives, scrapers, and graters remained virtually unchanged.

One of the major traits of the Archaic era was the ability of various groups to adapt successfully to a broad range of local conditions. Because of this, Muller (1978:285-286) argues that it is not surprising to find considerable differences in Archaic societies from one region to another throughout the Southeast.

Subsistence strategies employed by Archaic populations were probably similar in most cases, despite possible differences in technique which particular locations have dictated. The most common lifeway in this period appears to have been seasonal movement designed to exploit available resources such as

fruits, nuts, fish, and game. According to Muller (Ibid), Archaic groups probably minimized risk by utilizing a wide variety of resources.

Due to a preservation bias, data concerning subsistence are almost non-existent. Riverine resources were so important to the Archaic diet that Brain (1971) has modified Caldwell's (1958; 1965) definition of "Primary Forest Efficiency" into the concept of "Maximum Riverine Efficiency" in order to describe exploitation of the Lower Mississippi Valley during Archaic times.

One of the major river resources exploited was shellfish. Haag (1971:7) notes that shellfish move slowly but require rapidly moving water for their habitat. They, therefore, accumulate in fresh-water streams, such as rivers. At the Eva Site in Tennessee (Lewis and Lewis 1961), for example, a large shell midden composed of freshwater mussels has demonstrated the importance of this particular resource. The appearance of the bone fishhook during this era is also suggestive of an increased reliance on fish (Byrd and Neuman 1978:10).

Sites during this era are larger and more numerous, which is suggestive of increased populations (Ibid:14). Site locations occur primarily in areas where a diversified, abundant resource base could be exploited by an intensive hunting, gathering, and fishing lifestyle (Neitzel and Perry 1978).

Tools changed according to shifts in subsistence patterns. In Mississippi, for example, tools of the Middle Archaic exhibit little continuity with those from earlier times (McGahey 1975:13). Projectile points are more crudely made. The deterioration in workmanship is explained by McGahey (Ibid) as evidence of less emphasis on hunting and more on fishing and the gathering of shellfish and wild plants. More nutting and milling stones appeared as well and new tools such as grooved and ground stone axes, suggestive of adaptation to the total environment as well as improved technology, appeared. It is during this time that positive evidence of the presence of the atlatl in the Southeast is found (Williams and Stoltman 1965:679).

Haag (1971:10) believes that the Archaic era was extremely important throughout North America because it formed the basis upon which a great many local or regional variations developed.

It has been accepted by most archeologists that the consumption of wild plants constituted a major portion of the diet in Archaic times (Brain 1971; McGahey 1975; Muller 1978). Due to the lack of hard data, plant use is usually inferred from the presence of artifacts such as pestles, mealing stones, or nutting stones present at small, presumably seasonal camps (Byrd and Neuman 1978:11). At the Hester Site in Northeast Mississippi, small sandstones, pitted on each side, were consistently associated with Decatur points and were also found with Big Sandy points. Later testing revealed a clear trend for the Decatur component to overlie Big Sandy (Sam McGahey 1981:personal communication).

According to Muller (1978:286-287), the evidence from Archaic era sites throughout the Southeast clearly demonstrates that the population was usually organized into quite small groups or bands. He (Ibid) argues that small bands would have allowed any given group to react quickly to variation in the local availability of any food resource, provided the total population density over the Southeast was fairly low.

As population increased throughout Archaic times, however, increasing pressure would have been placed on those groups with restricted mobility to develop local resources subject to less annual variation. In addition, the efficiency of exchange and distribution of goods as well as improved storage systems would have to be developed (Ibid).

No Archaic sites have been recorded in the Dry Impoundment Area. One site (22Hi549), within the study area in the vicinity of Jackson and believed to date to the Archaic era, was recorded during the present reconnaissance.

4.1.3 Post-Archaic Era (2000 BC - AD 1700)

The Post-Archaic era marks the beginning of a major change in the lifestyle of prehistoric populations of the Southeast. Assuredly, there remained an underlying continuity in these people's lives; but according to Brain (1971:40-41), "the basic pattern of life became more complex as the result of social and religious superstructures." Thus, Brain (Ibid) defines the Post-Archaic on the basis of socio-religious elaboration rather than the usual physical innovations, such as pottery and agriculture.

The onset of the Post-Archaic is generally associated with the appearance of the bow and arrow, pottery making, agriculture, and (to a lesser extent) mound building. In many areas these traits did not appear simultaneously. In fact, Haag (1971:9) notes that in the east, agriculture was not important until "near the beginning of the Christian Era," while pottery was known as early as 2500 BC.

Five sites (22Md509, 22Md513, 22Md514, 22Md515, 22Ra556), dating to the Post-Archaic era, have been recorded within the Dry Impoundment Area. These sites are discussed in Appendix A. Six sites (22Hi510, 22Hi512, 22Hi562, 22Ra502, 22Ra527, 22Ra546), dating to the Post-Archaic era have been recorded within the study area in the vicinity of Jackson and are discussed in Appendix B.

4.1.3.1 Poverty-Point-Period (2000 BC - 500 BC)

Dating and chronological sequences in the Poverty Point period have been established by radiocarbon measurements, thermoluminescence datings, cross-cultural comparisons, and geological evidence (Webb 1977:4). A series of 42 radiocarbon dates taken from sites in the Lower Mississippi Valley confirmed the temporal antecedence of Poverty Point culture over the Tchefuncte-Marks-ville sequence (Ford and Webb 1956). Through the various dating techniques applied to Poverty Point sites it is believed that the Poverty Point culture began on the Gulf Coast and in the Mississippi River Basin by 1700 BC, was fully developed between 1200 and 1000 BC, and in a state of decline by 500 BC (Webb 1977:5).

Not all archeologists are in agreement as to whether Poverty Point culture should be classified as Archaic or Post-Archaic. According to McGahey (1975) and Neuman (1977), it falls into the Archaic era. Gibson (1974b) feels that Poverty Point can best be explained in terms of a transitional role, and it is seen as Post-Archaic by Brain (1971), Gagliano (1980), Haag (1978), and Webb (1977).

Diagnostic artifacts of the Poverty Point period include baked clay objects (such as the Poverty Point cooking balls), steatite vessels, plummets, microlithic tools, and distinctive dart point types such as Epps, Gary, and Motley (Brain 1971:46). Brain (Ibid:47) notes that the presence of "finely-wrought, nonutilitarian ornaments" are indicative of a high level of socio-economic development. He speculates that some crude, fiber-tempered pottery did exist in the later stages of the culture, but never in significant amounts (Ibid:52).

According to Webb (1977:7), most Poverty Point sites are found in four kinds of settings: 1) on terraces of old land masses overlooking major river courses, relict or active; 2) on levees of major river channels, generally relict; 3) at river-lake junctions; and 4) on the Gulf Coast, at estuaries or on old lands in marsh areas.

Webb (Ibid) states that Poverty Point sites were ecologically constant; that is, all sites were placed in contact zones, strategic ecotones that permitted the exploitation of combinations of environments. He also points out that, although there is no evidence of fortifications, major sites were situated so that the terrain provided protection in what Gibson (1974a:20) refers to as "territorial circumscription."

Poverty Point settlement patterns are interpreted by Webb (1977:7) as clusters of small sites situated around larger ones which he believed functioned as regional centers. The presence of exotic materials suggests that Poverty Point and other sites served as trade and redistribution centers (Brain 1971:51; Webb 1977:15).

Brain (1971:50) characterizes the Poverty Point culture as a "phenomenon of the bottomlands." He suggests that the lineal spread of the culture along a north-south axis was not accidental, but rather a response to the demand for exotic materials from distant sources along the riverine system. Wide trade networks existed and exotic trade goods are characteristic of Poverty Point sites.

The sizes of Poverty Point sites vary greatly, from the type site, that covers approximately one square mile, to the McCoy site that covers less than a quarter of an acre (Webb 1977:11). Information concerning structures is virtually non-existent at Poverty Point sites (Ibid:13). A presumed house floor found at the type site (Ibid:18) and a small, circular post mold pattern at the Jaketown (Ford, Phillips and Haag 1955: 34-36) provide the only examples to date.

No burials have been found at Poverty Point sites, even in coastal areas where faunal remains are well preserved. Cremation is the suspected pattern of disposal but the only charred human bones found so far have been under Mound B at Poverty Point (Webb 1977:14). Burial offerings at Poverty Point have been suggested by the placement of choice objects such as a double row of 40 copper beads, fine projectile points, and plummets (Ibid).

A wide variety of data concerning food procurement and preparation has been collected. Cooking activities are indicated by the presence of clay cooking balls associated with earth ovens and, masses of fire-cracked pebbles (Ibid). Containers believed to be associated with food preparation have been

found in the form of steatite and sandstone vessel fragments, impressions of basketry on clay in mound fills and on baked clay objects, and ceramics (fiber-tempered, sand-tempered, clay-tempered, grit-tempered, and untempered). Brain (1971:52) believes that the large numbers of steatite bowl sherds and baked clay objects clearly demonstrates that proven methods of food preparation were preferred. Webb (1977:14) states that the mechanism of pottery or stone vessel use is uncertain.

It has been stated that societies lying toward the center of a group of interacting societies will in most respects change more rapidly than those lying at the margins. According to Brain (1971:50-51), the center of interaction in Poverty Point culture was the type site. He says that it is probable that the climax was reached there because that location was at the most central point for utilizing the major mid-continental rivers (Mississippi, Ohio, Arkansas, and Red) - that is, at a geographical point where these rivers approached each other most closely at that time (Ibid).

No sites dating to the Poverty Point period have been recorded within the Dry Impoundment Area. One site (22Hi512) containing a Poverty Point component has been recorded in the study area in the vicinity of Jackson and is discussed in Appendix B.

4.1.4 Tchefuncte Period (700 BC - AD 200)

The origin of Tchefuncte culture is not known. According to Haag (1978:5), it probably originated in the Lake Pontchartrain area and diffused slowly northward along the Mississippi Valley. It is possible that its influence extended as far north as Memphis, Tennessee, but certainly no farther. Evidence of this culture has been found as far west as the Texas border.

Economic and settlement patterns of this period remained essentially the same as those of Poverty Point times. Trade and organized exploitation of natural resources (redistribution) remained the major economic pursuit. The spread of Tchefuncte culture, like that of Poverty Point, was primarily along a north-south axis, largely because of the trade of exotic goods obtained from the north via the Mississippi River (Brain 1971:50-53). However, Tchefuncte materials have been reported in the central Tombigbee (Richard Marshall 1981: personal communication).

There is a large amount of disparity concerning dates for the span of this culture. Phillips (1970) places it within the span of about 500 to 100 BC, Neuman (1977) dates the culture in coastal Louisiana between 750 BC and AD 250, McGahey (1975) places it at circa 500-100 BC, and Haag (1978) gives no date, although he (Haag 1971) estimates that perhaps five or six centuries were required for the gradual change from Archaic lifestyles to the Tchefuncte modifications which emphasize the exploitation of coastal resources to be completed.

This period is marked by the first widespread use of pottery, a reduction in the number of stone artifacts, and the introduction of earthen burial mounds (Haag 1978:5). The first pottery was simple and not very well made. Later in the period, pottery became fairly abundant and is marked by a distinctive set of shapes and decorations (Ford and Quimby 1945:89). Diagnostic pottery features include tetrapodal supports; simple pot and bowl

forms; rocker-stamped and punctated-incised decorations consisting mainly of straight lines; and pinched and fingernail-impressed decorations.

Other diagnostic artifacts include socketed antler points, harpoon heads, large socketed bone points, and antler atlatl hooks (Ibid:44-45). Projectile forms continued to be mainly the large points held over from the Archaic era.

To the north, the culture is referred to as Tchula. Diagnostic artifacts are much the same; Gibson (1968) reports that the pottery is clay-tempered and includes stamped (rocker and simple), punctated (fingernail and tool), and incised (wide and narrow line, drag and jab) decorative techniques. Perhaps the most diagnostic characteristics of Tchula pottery are the contorted paste and finely cracked surface. Poverty Point baked clay objects and Gary dart points are also common.

Even though ceramic artifact assemblages are distinctive, the period is loosely defined because there are few sites and these are scattered over a broad area (Phillips 1970:876; Brain 1982:personal communication). As Haag (1971:15) has pointed out, our knowledge of the Tchefuncte period is confined mainly to information gathered from coastal shell middens.

It is uncertain whether or not simple horticulture played a role in the subsistence of Tchefuncte peoples. It is clear that hunting and the exploitation of shellfish were economic activities of major importance. According to Ford and Quimby (1945), deer was the most common animal species exploited during Tchefuncte times. Byrd (1974) documented the presence of a possible native cultigen (knotweed) and of squash at the Morton Shell Mound, a Tchefuncte site in Iberia Parish. She (Ibid) also found evidence of the use of several wild plants, including hickory nuts, walnuts, acorns, persimmons, and wild grapes.

Not much information is available concerning houses during Tchefuncte times. According to Neuman (1977:16), Tchefuncte houses were apparently built in an oval pattern from small poles. A small, circular house pattern was found at Jaketown (Sam McGahey 1981:personal communication).

The period seems to represent a time of "fall back" between the Poverty Point culture and the arrival of Marksville traits from the Illinois and Ohio Hopewellian centers to the north. As the Tchefuncte culture diffused northward, it seems to have blended with Marksville traits; this blend is reflected mainly in pottery types.

Haag (1971:16) considers the Tchefuncte culture to be a coastal outgrowth of the Archaic which gradually spread up the Mississippi River Valley and its tributaries. However, Toth (1977:48) notes that there is an almost total absence of Tchefuncte sites along the Mississippi River and its major tributaries. He (Ibid:50) hypothesizes that Tchefuncte is a culture manifested in "slack water environments," and notes that the distribution of sites is "remarkably coincident" with slow-moving secondary streams and lakes. Toth feels that a possible reason for few Tchefuncte sites being located during normal surveys is the general tendency for surveyors to concentrate on higher alluvial ridges, and to conduct more cursory surveys in the wetter bottomlands. He feels that if surveys concentrated on bottomlands areas, "it can be predicted that such a research orientation would result in a significant increase in Tchefuncte sites."

He (Ibid:51) notes that it would have been necessary to abandon such sites each year during the time of high water; this leads to what he terms the second attribute of the Tchefuncte settlement pattern; a tendency for site location toward the edges of the alluvial valley away from the Mississippi River, and near uplands or elevated stretches of dissected older alluvium.

No sites dating to the Tchefuncte period have been recorded within the Dry Impoundment Area. One site (22H1512) containing a Tchefuncte component has been recorded in the study area in the vicinity of Jackson and is discussed in Appendix B.

4.1.5 Marksville Period (100 BC - AD 400)

The Marksville period spans the years between 100 BC and AD 400. However, Haag (1971:17) speculates that the Tchefuncte culture survived in coastal areas "long after the later Marksville culture was fully developed at the type site," and Neuman (1977:6) suggests a span of AD 250 to AD 700 for the Louisiana coast.

According to Haag (1978:5), the Marksville culture originated in the Ohio River Valley and spread southward. It is considered by some (Ibid) as the regional manifestation of the Hopewellian culture as it diffused southward from Ohio and Illinois. The period, named for the Marksville Site in Avoyelles Parish, Louisiana (16AV1), is characterized by the introduction of very fine pottery, well-made projectile points that appear to have been manufactured primarily for use as grave goods (Ibid:17), and elaborate ceremonialism (Haag 1978:6).

In the absence of detailed information concerning the structure and content of Marksville sites, it is difficult to draw any conclusions concerning settlement patterns of this period. Gagliano (1980:3-130) presents three models which he believes to be representative of the period.

- 1) Major villages on the natural levees and/or terrace margins, summer shellfish collecting camps around Lake Pontchartrain and Lake Maurepas, and hunting camps on the Prairie Terrace. This model would predict that some sites would have been inhabited by at least some members of the population year around, probably by most people in the winter months when foods were least available. Small parties of women, young people, or adult men would spend 2 to 3 weeks at shellfish collecting, hunting, or gathering camps at various times throughout the year.
- 2) A pattern of seasonal transhumance, with each social group spending half the year at one of 2 villages.
- 3) No permanent villages, merely a series of constantly shifting camps.

Marksville pottery includes grog and sand and grit wares. Diagnostic pottery types include Marksville Stamped, Marksville Incised, and Churupa Punctated. The cross-hatched rim is an important criterion in the recognition of Marksville pottery (Ibid:19). According to Haag (1978:6), ceremonial pottery, presumably utilized as containers for burial offerings, is one of the most

outstanding innovations of the Marksville culture. Few artifacts, other than pottery, are distinctively Marksville (Ibid).

There are no projectile point types that are unique to the Marksville culture. Gary and Ellis dart point forms, present during Tchefuncte times, continued to be common throughout the Marksville period (Ibid). Lithic reduction techniques from the Poverty Point period, such as lamellar flaking, were also retained (Neitzel and Perry 1978).

Although large conical burial mounds were built during this time, their size is not comparable with those of the Hopewellian and Adena cultures in Ohio. Indeed, Neitzel and Perry (Ibid:108) note that the size of burial mounds tends to decrease with distance from the Hopewellian center, with only a few notable exceptions.

The construction of burial mounds (some cremations are also present), along with the manufacture of elaborate burial furniture, would tend to typify the Marksville culture as a "death cult." In fact, some burials are accompanied by disarticulated skeletal parts such as mandibles or skulls which have been perforated or cut (Haag 1971:18).

Marksville burials were typically placed deep in the center of the mound. Most of the interments consisted of a pit dug in the ground. The bodies were placed in the pit which was covered with poles and a pile of dirt erected over the structure. At the Marksville site, the burial mounds were enclosed by an earthen wall, which presumably functioned as a means of separating the burial area (which may have been considered sacred) from the rest of the village (Haag 1978:6).

Boatstones, ornaments made in the forms of animals from slate and coal, and "monitor pipes" which were made of stone and shaped like an animal, were introduced during this time (Ibid:19).

Evidence concerning house types during this period is minimal. At least two examples of pithouse construction have been discovered at the Marksville site which are about 1 to 1.5 meters (3.3-4.9 feet) deep. Haag (Ibid) believes that they may have been roofed and finished with siding. According to Neitzel and Perry (1978:108), houses built during this period appear to have been circular, covered with earth, and fairly permanent.

Hunting and fishing continued to be important economic activities, although the presence of squash and corn remains recovered from the type site are suggestive of the beginnings of agriculture (Byrd and Neuman 1978:16). Haag (1978:6) believes that there is not enough evidence to support an hypothesis that corn had become a true staple in Marksville times. He feels that it was probably a dietary supplement.

Marksville culture ended about the same time that the Hopewell of the Ohio Valley and Illinois terminated. Neitzel and Perry (1978) suggest that the "profound and far-reaching effect" of the culture was due not only to the strength of the Hopewellian culture, but also to the local state of receptiveness to its traits.

No sites dating to the Marksville period have been recorded within the Dry Impoundment Area. One site (22Hi512) containing a Marksville component has been recorded in the study area in the vicinity of Jackson and is discussed in Appendix B.

4.1.6 Baytown Period (AD 400 - AD 700)

The Baytown period is an indistinct period of transition between the decline of the Marksville culture and the later emergence of Coles Creek. Brain (1971:58) states that this period is the least understood in the entire Post-Archaic (Neo-Indian) era; yet in economic terms it was potentially the most significant. He (Ibid:59) views it as one of solid achievement and at least a modest flourescence.

Although the Baytown period is often interpreted as a time of decline (Ibid; McGahey 1975:17), important advances did occur. Arrow points, occurring for the first time, indicate the introduction of the bow (replacing the atlatl) and maize cultivation also probably commenced in this period (Brain 1971; Haag 1978).

According to Haag (Ibid), use of the bow and arrow is evidenced by the presence of small, thin projectile points such as the Collins type, which are believed to have functioned as arrowheads. The bow is seen as representative of a major technological achievement capable of greatly increasing the hunting capacity of small groups of men (Ibid) and bringing about economic revolution (Brain 1971:61). This means that, even though there may not have been a population increase during Baytown times, the culture itself had an increased chance of survival because the hunter could augment the food supply with much less effort (Ibid).

The bow and arrow probably did not signal the end of the atlatl completely. Gary and Ellis points suggest that it was still used. According to McGahey (1975:17), there are no examples of outstanding lithic manufacture during this period.

There is virtually no evidence in the form of plant remains for the presence of agriculture during this period (Brain 1971:60), although corn has been recovered from the Hoecake site in Missouri (Williams 1974). According to Brain (1971:60), the case for agriculture can be demonstrated through the artifact assemblages at Baytown period sites. He states that the larger size and jar shape of many Baytown vessels suggests their use as storage containers for grains or seeds. A stone tool inventory, which includes many implements which could have been used for cultivation, a variety of grinding stones, and shell hoes are considered by Brain (Ibid) to provide the strongest case for plant domestication.

McGahey (1975:17) feels that there is not enough evidence to demonstrate the presence of agriculture, and believes subsistence was still based primarily on hunting and gathering. The importance of wild plants has been shown. Several sites in the Yazoo Basin, for example, have yielded large quantities of animal bones, charred nuts, and seeds of wild plants (Ibid). At Baytown period sites in Arkansas, Mississippi, and Missouri, plant remains of pecan (C. illinoensis), walnut (Juglans sp.), acorn (Quercus sp.), persimmon (Diospyros virginiana), wild bean, knotweed (Cutler and Blake 1970), grape

(*Vitis* sp.) (Williams 1974), hickory (*Carya* sp.), and honey locust (Figley 1968) have been recovered.

The burial mounds and earthworks of the Marksville period are lacking during the Baytown period. Village sites are marked by oval or crescentic-shaped middens at either end of an oval plaza. Later in the period, flat-topped house mounds built over the middens made their appearances. Excavation of midden deposits has indicated that these were frequently sealed with thin layers of clean, sterile clay, possibly as a sanitary measure (Neitzel and Perry 1978). Human burials are generally extended and placed within the midden deposits. Dog burials have also been reported.

One site in the Dry Impoundment Area (22Md514) has been classified as a Late Baytown village site (Site records MDAH). In the study area in the vicinity of Jackson site 22Hi512 has been described as possessing a Baytown component (Rands 1958, 1959).

4.1.7 Coles Creek Period (AD 700 - AD 1100)

Phillips (1970:18) characterizes this period as "beginning with the emergence of Coles Creek in the southern part of the Lower Mississippi Valley and ending with the establishment of full blown Mississippian culture in the northern part." He believes that Coles Creek culture developed in the southern part of the Lower Mississippi Valley and diffused northward into the area where the Baytown culture persisted. Generally accepted dates for the period span the years AD 700-1100.

There was both a geographic and numerical expansion of the population during Coles Creek times. This is no doubt related to a more secure economy based on the increased production of maize (Haag 1978:7). Flint maize was introduced into the area from the east, and planted along with beans. Fields were not abandoned so often, and fields abandoned earlier could be recovered by the planting of a different crop (Neitzel and Perry 1978:117). The bow and arrow, introduced during the preceding Baytown period, was rapidly integrated into the hunting and warfare patterns of Coles Creek populations (Ibid).

Coles Creek sites include both oval and pyramidal mounds. Apparently pyramidal mounds are a late development. Pure Coles Creek components are difficult to isolate, but the earliest assemblages include distinctive pottery (incised and punctated types), Gary dart points, and Alba and Scallorn arrow points (Brain 1971).

A typical Coles Creek site consists of two or three pyramidal mounds arranged around a plaza. Most of the mounds constructed during this period were from four to seven meters (13-23 feet) in height. They were built in stages (sometimes as many as 20 successive buildings represented in a single mound) (Haag 1978:7).

The function of the mounds is not yet fully understood but it is assumed to have been ceremonial because they served as the bases of temples (McGahey 1975:18). Although these structures were not elaborate (built of poles, the walls enclosed with mud, and roofed with grass thatch), it has been assumed by some researchers (Haag 1978:7; McGahey 1975:18) that the impetus for this concept originated in Mesamerica.

The new mound-building activity is suggestive of significant changes in the culture. Burial of the dead no longer assumed great importance. According to McGahey (Ibid), some burials were placed in temple mounds, but they were carelessly interred and rarely accompanied by grave furniture. Williams (1963) believes that the mounds were not constructed for burial purposes.

The construction features of these mounds and their location in groups, with a village midden nearby, suggest to Haag (1978:7) that living took place near the site, as well as a strong commitment to religious convictions. The fact that the dirt used in mound construction was obtained nearby is indicative that they were the result of community efforts (Ibid).

Another innovation during this time is the introduction of a new series of pottery types. According to Haag (Ibid), ceramics associated with this period appear to be related to examples in northwest Florida. He mentions that there are no known Middle American pottery types which closely resemble the Coles Creek assemblage. On the basis of pottery, it has been hypothesized that the Coles Creek culture enjoyed a much wider distribution than Baytown. It is found as far north as the upper reaches of the Lower Mississippi Valley, and as far west as Texas and Oklahoma (Ibid).

Haag (1971:25) notes that some houses constructed during this time were round. The walls were made by erecting poles from three to six inches (7.6-15.2 centimeters) in diameter. Haag (1978:7) mentions that large, rectangular house types, with large settlement groups became the dominate pattern later in the period.

Toward the end of the period, the culture reached its maximum distribution. Despite the wide-spread influences in other areas of the country, it is still viewed as a culture characteristic to the lower half of the Lower Mississippi Valley (Ibid).

No sites dating to the Coles Creek period have been recorded within the Dry Impoundment Area. One site (22Hi512) containing a Coles Creek component has been recorded in the study area in the vicinity of Jackson and is discussed in Appendix B.

4.1.8 Mississippian Period (AD 1000 - AD 1700)

The Mississippian period, the last major prehistoric culture in North America, is considered by McGahey (1975:18) to represent the highest prehistoric civilization in eastern North America and possibly the entire continent. It has been identified by others (Griffin 1967; Mosenfelder 1975) as the greatest sociopolitical and economic elaboration that occurred during the later prehistory of the eastern United States. According to McGahey (1975:18), it had a wider influence on the state of Mississippi than any other archeological culture.

The Mississippian developed along the northern reaches of the Mississippi River. The culture spans the time from about AD 1000 to European contact. In the Upper Mississippi Valley elements survived to the beginning of the nineteenth century (Haag 1978:7). Although sites of this period have been found throughout Mississippi, the majority of sites recorded so far are concentrated

in the fertile Yazoo Basin. According to McGahey (1975:19-21), this area was ideal for their agricultural economy.

According to Brain (1971:74), the classic Mississippian marker was its pottery. The advent of shell tempering allowed the fabrication of larger containers. Vessel shapes such as bottles, plates, and jars are diagnostic of the period. Other characteristic artifacts include a number of chipped and ground stone artifacts such as triangular and leaf-shaped arrow points, including Madison, Cahokia, and Nodena types (Ibid:Figure 13, d-e).

Other traits of this period include an apparent revival of respect for the dead, who were often carefully buried and accompanied by rich grave offerings (Ibid). Ceramics found in Mississippian graves, for example, are considered by some as perhaps the most outstanding art work of North America. Many of the vessels were painted, usually in combinations of red, white, black, and buff. Realistic anthropomorphic and zoomorphic effigy vessels are common. Also, exotic trade materials were used as grave furniture (McGahey 1975:21). The more important people were placed in pyramidal mounds and often accompanied by unusually rich offerings (Brain 1971:74).

A major part of the culture was the extensive practice of agriculture which supplied the major portion of food consumed. Large food surpluses made possible the construction of large mounds, fortifications, and the ability to wage war instead of small-scale raids. The concentration of people into towns and cities was now possible (McGahey 1975:18-19).

Another distinctive feature of Mississippian times was building construction. According to Brain (1971), the basic building was rectangular in form and constructed of wattle and daub. Houses were being erected on small mounds reflecting a change in settlement pattern (Ibid:75). Nash (1968) views this as the introduction of a new functional type of mound which he terms "domiliary."

The combination of traits such as "status burials," large-scale agriculture, and massive mound construction, suggests that Mississippian society was less egalitarian than in previous cultures. It is also reflective of certain individuals possessing power and control over others (McGahey 1975:21).

By AD 1200, the Mississippian culture was well established in the northern region of the Lower Mississippi Valley, and several regional phases were flourishing. These centers appear to have acted as the source of many of the general Mississippian traits, especially ceramics, which diffused southward (Brain 1971:75).

There were two important developments during the Mississippian period in the Lower Mississippi Valley. The Mississippian culture developed in the northern part of the valley and the Plaquemine culture developed in the south. According to Haag (1978:7), Plaquemine was an obvious outgrowth of Coles Creek into a cultural manifestation contemporaneous with the upper valley Mississippian.

The entire development, the Mississippian and Plaquemine, represents the highest development of culture in the eastern part of the United States. There is no doubt that aboriginal population had reached its absolute peak at

this time, and yet there is some indication that there was beginning, a decline in total numbers of peoples long before Europeans arrived. It is believed that a major factor which contributed to the decline of this pre-Columbian population was an increase in warfare. This has been partially substantiated by the presence of palisades which are obviously a late pre-historic development in the southeast (Ibid).

Additional research may demonstrate that the Pearl River may have been a Plaquemine/Moundville interface and this should be considered when drafting future research designs for the Pearl River Basin. According to Dr. Galloway (1982:personal communication), a major problem of the area is the definition of what Mississippian cultures became what historic tribes. Research designs constructed to take into account these problems may provide much valuable information concerning the prehistory and proto-history of the area.

No sites dating to the Mississippian period have been recorded within the Dry Impoundment Area. One site (22Hi512) containing a Mississippian component has been recorded in the study area in the vicinity of Jackson and is discussed in Appendix B.

4.2 Historic Native Americans

4.2.1 Choctaw

No historic Indian sites have been recorded in the Dry Impoundment Area or Pearl River in the vicinity of Jackson. However, there is evidence that by the late 17th century, Choctaw Indians were inhabiting the region (Pat Galloway 1982: personal communication). A map of the Pearl River drawn in 1765 (Ross 1772) depicts Chactaws (Choctaws) or Flathead Indians living along the upper regions of the Pearl River.

4.3 Euro-American Exploration and Settlement

4.3.1 Early Explorers (1541-1699)

During the 16th and 17th centuries, various explorers passed through the Southeast in their quest for new lands to conquer. At that time, these explorers were primarily interested in obtaining gold, silver, and other forms of wealth for their countries. Colonization was not a primary consideration.

Although some of these early explorers may have passed through the project area, no record of the area is mentioned in their accounts. Hernando de Soto passed through northern Mississippi in 1541, and became the first white man to visit the state (Stone 1975:23). In 1682, La Salle travelled down the Mississippi River and claimed all lands to the east of the river for France (Davis 1959:26).

4.4 The French Colonial Period (1699-1763)

The project area was included in the land claimed for France by La Salle in 1682 (Vexler and Swindler 1978:1). However, no settlements were established in the project area and it remained under the control of the Choctaw Indians. The Pearl River was named when Bienville visited it in 1699 and called it "Rivier aux Pierres" (McWilliams 1953:16).

In 1732, Regis du Roulet surveyed the entire course of the Pearl River in order to determine its navigability (Rowland and Sanders 1927:149 notes). In his journal, he gives a detailed account of the river including such features as bluffs, tributaries, island, width, depth, and swiftness of current. He also noted Indian villages along the way. No villages in the project area are recorded on Roulet's (1732) map.

Roulet constructed a small palisade fort on the upper Pearl in the Choctaw settlement of Sapachitto in 1732, with the intent of using it as a trade depot (Pat Galloway 1982:personal communication). According to Dr. Galloway, there may be further evidence uncovered regarding intermittent French use of the river as a trade artery, especially since this was du Roulet's real purpose in surveying it.

No sites of this period have been recorded in the Dry Impoundment Area or the study area in the vicinity of Jackson.

4.5 British Colonial Period (1763-1779)

The project area was included in the land ceded to Britain by France according to the 1763 Treaty of Paris (Skates 1979:32). Thus, by 1763, the Mississippi River divided Spanish North America from British North America (Ibid). No European settlements were established in the project area and it remained under the control of the Choctaw Indians.

No sites of this period have been recorded in the Dry Impoundment Area or the study area in the vicinity of Jackson.

4.6 Spanish Colonial Period (1779-1795)

The project area was included in the land taken from the British by Spain in 1779. During this period there were virtually no European settlements in the project area. Most European settlement at this time was concentrated below the 31st degree of latitude in West Florida.

About 1790, due to pressure from the leaders of the Catholic Church, the Spanish Government began to require from settlers an oath of allegiance to the Catholic Church. Many of the settlers in the Florida parishes were Protestants. Most of the later arrivals refused to become members of the Catholic faith and could not qualify for land grants. As a result, these settlers travelled the Pearl River north of the 31st degree of latitude (the line between the U.S. and Spain), and settled in what is now Marion County, Mississippi. Emigration into what is now Pearl River and Hancock Counties virtually ceased. Only one site of this period is known.

The approximate location of one site belonging to this period has been documented as being just outside the project area. The site is that of an early trading post (Le Fleur's Bluff) established by Louis Le Fleur in 1792, on the bluffs overlooking what is now downtown Jackson (Rowland 1907, Vol. 2:72).

He established a profitable trade with the Choctaw Nation and later with westward-bound white settlers. By 1810, Le Fleur's trading post had become the focal point of the region, not only for the transaction of business, but

also for food and lodging (Robertson n.d.:3-4). Le Fleur became involved in the keel-boat business and was occasionally employed by the United States government to transport goods (Ibid). There is not enough evidence at this time, however, to determine the exact location of the site of Le Fleur's trading post.

4.7 American Colonial Period (1795-1817)

The project area was included in the land acquired by the United States as a result of the Pinckney Treaty of 1795 (Davis 1959:129).

After the Revolutionary War, settlers began to push west of the Appalachian Mountains and settle in what are now the states of Kentucky, Tennessee, and Ohio. By 1790, there were more than 1,000,000 settlers in this region who needed to reach world markets with their surplus farm products and the easiest way to reach these markets was to send the goods down the Mississippi to New Orleans and there transfer them to ocean-going ships (Ibid)

The pressure exerted by these colonists for use of the Mississippi River as a transportation route helped bring about the Pinckney Treaty. In 1795, Thomas Pinckney, the United States Minister to Great Britain, signed a treaty with Spain in which the Spanish agreed to give Americans the right to transport goods down the Mississippi River to New Orleans and there to deposit them until they could be loaded onto ocean-going ships. It also gave the United States undisputed title to all lands north of the thirty-first parallel and east of the Mississippi River (Ibid).

On April 7, 1798, according to an Act of Congress, the Mississippi Territory was established. This area included all land bounded on the west by the Mississippi River; on the north by a line to be drawn due east from the mouth of the Yasous (Yazoo) to the Chatahoochee River; on the east by the river Chatahoochee; and on the south by the thirty-first degree of north latitude (Skates 1979:54).

When the Mississippi Territory was opened for settlement, a flood of immigrants entered the area from 1798 until 1819. This migration trend was largely due to exhausted land (tobacco planting) and the unavailability of good land in the upper south (Lowery 1968:175). Another factor was a decline, after the American Revolution, of markets for southern staples, especially tobacco and rice (Ibid:176). Probably the most important force was the rapid expansion of cotton. The invention of the cotton gin by Eli Whitney in 1793 made possible many varieties of cotton available for production (Ibid:176-177). The project area was still controlled by the Choctaw and Anglo settlement was sparse, especially north of the 31st degree of latitude.

Transportation during this period was restricted to Indian trails, the few existing roads, and the Pearl River. Ferries were necessary to cross the river as bridges were virtually unknown. Two new roads (General Wilkinson's Road and the Jackson Military Road) were completed between 1812 and 1820, which facilitated travel in the area.

As the steamboat had not made its appearance on the Pearl River at this time, water travel was limited to small boats such as canoes, barges, keelboats, rafts, and flatboats (Robertson 1961:8-9). By 1815, rafting had

become a major means of transporting timber down the Pearl River (Benham 1976:216).

4.8 Statehood and Antebellum Settlement Period (1817-1860)

When Mississippi joined the Union in 1817, with the capital at Washington, Mississippi, the project area was still under control of the Choctaw Indians, and unavailable for Euro-American settlement. It was not until 1820, when this land was ceded to the United States Government under the Treaty of Doak's Stand, that the project area was open for settlement. With the acquisition of the Choctaw Indian lands, thousands of people moved into the area (Skates 1979:78-83).

With the acquisition of the Choctaw Indian lands in 1820, it was decided that a centrally located capital was needed in order to better govern the growing state of Mississippi. Le Fleur's Bluff on the Pearl River was chosen as the site which was named after General Andrew Jackson, backwoods hero and architect of the Treaty of Doak's Stand. The government began operations at Le Fleur's Bluff in December of 1822 (Skates 1979:82-83). Hinds, Madison and Rankin Counties were created out of this cession in 1821 and 1828, respectively. In the Treaty of Dancing Rabbit (1830) the Choctaws gave up the rest of their land in Mississippi, including what is now Leake and Scott Counties, both of which were formed in 1833 (ibid; Goodspeed 1891:205-244).

Settlement of the area was almost immediate. Cotton farmers, both small landholders and plantation owners, moved west from Georgia and the Carolinas, seeking land not yet exhausted by the crop (Phillips 1906:799-816). Many of these settled along the banks of the Pearl River in the 1830-1840 period. Owning land along a river offered major advantages in the ante-bellum south. First of all, rivers were the major means of transportation throughout the era (Robertson 1961:8-9) and the Pearl was navigated by barges, keelboats, rafts and flatboats. Secondly, the alluvial deposits left by the floods of the river renewed the soil, which the poor cotton-farming methods of the time tended to deplete. Third, the soil along the river was more fertile than the hill soils to the east. For these reasons, almost all the land along the Pearl had been claimed by the 1850's.

The flow of immigrants led to a land rush in 1833-1837 and a rate of population growth unparalleled in the state's history (Skates 1979:18). Jackson, the state capital, was built on the Pearl and became (and remains) the primary city of the area. Table 4-1 shows the rapid population growth in the area during this period.

The early economy of the project area was largely dependent on the Pearl River. Most of the settlers depended on farming or some form of agriculture for their living. In the 1830's, cotton was grown along the river as far up as Jackson. Flatboats were relied on to transport their products to downstream markets such as Gainesville and Pearlinton (Picayune Item, April 11, 1979). Transportation in these early days was restricted to the river or Indian trails such as the Natchez Trace.

The arrival of the steamboat had a marked effect on the economy of the project area. When steamboats began regular operations on the Pearl River, rapid growth in river transportation and delivery of goods until the

TABLE 4-1

AREA POPULATION GROWTH, 1830-1890

| YEAR | LEAKE | SCOTT | HINDS | MADISON | RANKIN | TOTAL |
|------|--------|--------|--------|---------|--------|---------|
| 1830 | ----- | ----- | 8,645 | 4,973 | 2,083 | 15,701 |
| 1840 | 2,162 | 1,653 | 19,098 | 15,530 | 4,631 | 43,074 |
| 1850 | 5,533 | 3,961 | 25,340 | 18,173 | 7,227 | 60,234 |
| 1860 | 9,324 | 8,139 | 31,339 | 23,382 | 13,635 | 85,819 |
| 1870 | 8,496 | 7,847 | 30,488 | 20,948 | 12,977 | 80,756 |
| 1880 | 13,146 | 10,845 | 43,958 | 25,863 | 16,752 | 110,564 |
| 1890 | 14,803 | 11,780 | 39,279 | 27,321 | 17,922 | 111,105 |

Sources: Various U. S. Censuses, 1830-1890.

railroads were built connecting Jackson with the port towns on the Mississippi. During periods of high water, steamboats ran from Neshoba County, north of the study area, to the mouth of the river.

The first definite record of steamboat activity on the Pearl River came in 1835, when Captain James Lathan announced in a local paper that he intended to operate the Choctaw between New Orleans and Jackson throughout the season (Robertson 1961:31). Other steamboats operating on the Pearl River during this time included the Express (1836), Denmark (1838), Grand Gulf (1838) (Ibid), Caroline (1848) (The Carthagintan, August 16, 1979), and Ranger (1859) (Robertson 1961:31-32).

The first railroad in the area was the Vicksburg and Jackson Line in 1840 (Moore 1979:61). In 1850, a bridge was built over the Pearl River and railway service was offered between Jackson and Brandon, Mississippi, nine miles east (Ibid). In 1858, the New Orleans, Jackson and Great Northern Railroad reached Jackson (Ibid). Although this line did not pass through the project area, it contributed greatly to the growth of Jackson and surrounding areas.

4.9 Civil War and Reconstruction Periods (1861-1874)

The Civil War wrecked the prosperous agrarian economy of the South in general and Mississippi in particular. In 1860, the true value of the United States was estimated at \$16.2 billion, \$6.3 billion (or 39%) of which was concentrated in the South. Ten years later the United States' estimated true value was set at \$30.1 billion, but only \$4.2 billion (or 14%) of the Nation's value was found in the South. In 1860, Georgia, Mississippi, and South Carolina were ranked 8th, 9th and 11th in economic wealth among the states. By 1870, their rankings were 21st, 26th and 27th, respectively (Parkins 1939:1-15).

Jackson was considered so vital to the interests of the South that it was burned on two occasions in 1863 by Union forces (Adams 1950). The destruction was so complete that the city became known as "Chimneyville" (Skates 1979:108).

Major transportation routes such as the railroad were indispensable to the Confederacy and became prime targets for the Union Army. The New Orleans, Jackson and Great Northern Railroad connection at Jackson was destroyed by Sherman's soldiers in May of 1863 (Burkhardt 1975:6-7), and the Vicksburg, Meridian Railroad bridge over the Pearl River at Jackson was destroyed in July of 1863 (Adams 1950). In addition, all bridges across the Pearl for fifteen miles south of Jackson were ordered destroyed by Sherman at the same time (Ibid:69).

If the war was bad, Reconstruction was probably worse from an economic point of view. Prior to the war, personal property (mainly in the form of slaves) had been the major source of tax income for Mississippi. After 1865, the tax burden fell on the only remaining source of revenue: real property. The Mississippi Constitution of 1868 not only made all property taxes ad valorem but declared that assessed value was to be at real market value. The larger farmers and land speculators, who were frequently one in the same, were unable to pay these taxes and land forfeiture reached unprecedented levels. By April, 1871, the amount of land forfeited in Mississippi stood at 3,329,324 acres (excluding 3,518 acres in town lots). By 1874, the state auditor estimated that this figure was doubled to over 6,000,000 acres, or one-fifth of the total state acre (Brandfon 1967:40-44). Much of the land along the Pearl was forfeited to the Sheriff or tax collector.

The New Orleans, Jackson and Great Northern Railroad again assumed a major role--this time in aiding reconstruction. On June 24, 1865, the line was back in operation (Burkhardt 1975:7), and by the end of 1866, regular passenger trains were making the 206 mile run between New Orleans and Canton, Mississippi (Ibid:9).

The steamboat did not reappear until the 1870's. The first steamboat to operate on the Pearl River following the Civil War was the Steadman, which ran about 1870 (The Carthaginian, August 16, 1979). However, in 1874, a sudden decline and almost stop of steamboat traffic along the Pearl River is attributed by H. C. Collins to a great flood on the lower Pearl (Flagler 1913:3-4).

4.10 New South Era (1877-1941)

During this period, sharecropping and tenant farming replaced the plantation as the dominant economic system in the area. The land previously forfeited was gradually bought up by smaller landholders.

During the period 1877-1905, the Pearl River and the railroad were vital to the growth of the project area. In March of 1879, an examination was made of the river from Jackson, Mississippi to the mouth of the Rigolets, in order to determine the amount of work necessary to improve the river for commercial boat traffic. Based on this examination, a project was adopted in 1880, which provided for a channel five feet deep from Jackson to the mouth, at an estimated cost of \$95,940. The project was found impractical to obtain this depth, and was modified in 1885 to provide for a channel two feet deep at an estimated cost of \$145,940 (Ibid).

The Army Corps of Engineers began maintenance and improvement of the Pearl River channel in 1880 (Morning Advocate, October 25, 1953). In spite of Civil War obstructions on the river and the great flood of 1874, commerce on the river reached its peak in 1895 (Romero 1968:167).

During this period, 1905-present, there was a marked increase in the economy of the project area. The spread of the railroad contributed significantly to this change.

In the early 1900's, the city of Jackson was the greatest railroad center in Mississippi with lines radiating from the city in seven directions. In 1907, four lines served the city. They were: the Illinois Central, the Yazoo and Mississippi Valley, the Alabama and Vicksburg, and the Gulf and Ship Island (Rowland 1907, Vol. 1:952).

The growth of the manufacturing industry was directly related to the city's importance as a railroad center. In 1907, Jackson boasted the largest manufacturing output in the State, and was second in number of establishments. These industries included cotton seed oil mills, fertilizer factories, iron foundries, wood working plants, and ice factories (Ibid).

Although commerce on the Pearl River was gradually diminishing, it was still important in the early 1900's. Staves used for the manufacture of wine barrels were shipped on the river from Carthage to New Orleans by Eugene Stribling in 1900 (The Carthaginian, August 16, 1979).

Henry Ingle Caldwell operated the first gasoline-powered boat on the Pearl River until it sank near Madison in 1904. He hauled cotton, cotton seed, and corn from Carthage to Jackson and returned with flour, sugar, molasses, and other merchandise. Caldwell piloted the river with various boats until about 1916 (Ibid).

In 1922, due to the marked decrease in river traffic, the Army Corps of Engineers abandoned maintenance and improvement of the Pearl River Channel (Morning Advocate, October 25, 1953). The combination of the railroad and the emergence of the highway system in the 20th century signaled the virtual end of commerce on the Pearl River in the project area.

The South's economic recovery was extremely slow. As late as 1938, President Roosevelt referred to the South as "the Nation's number one economic problem." In terms of economic value, Mississippi ranked last among the 48 states in 1935 (Vance 1935:442).

The economy of the landholders along the Pearl suffered from the same crushing poverty as the rest of the region in the New South era. Their problems were no doubt intensified by the declining importance of the Pearl by other transportation routes (i.e., the railroads and the improving highway system).

4.11 The Modern Era (1941-Present)

The Pearl River area ceased to be dominated by agriculture and forestry after World War II. Many of the former black sharecroppers left the region for better economic opportunities in the cities. Today, little evidence of the plantation or tenant systems can be seen along the Pearl River.

Today, the city of Jackson is encroaching on the western limits of the project area in the vicinity of Jackson and numerous communication corridors (railroad bridges, highway bridges, and utility lines) cross the study area. However, today the Dry Impoundment Area has almost no settlement, except along the northwestern periphery.

5. SURVEY RESULTS

5.1 Literature/Background

Information obtained from State and Federal agencies in Jackson, Mississippi, has been incorporated into this report. Only the geographical literature and the county land records were of significant research value. Many of the earlier records in Rankin and Hinds Counties have been destroyed by courthouse fires or Union invaders; consequently, these counties have adopted a "Blind Survey System." Construction of a detailed settlement map proved unfeasible under this type of system, but a review of the records indicated no significant deviation in the general regional settlement succession pattern.

5.1.1 Dry Impoundment Area

Inspection of the National Register of Historic Places and its supplements revealed that no sites were listed within the area of the two proposed dams, associated spillways and dry impoundment area.

A check of the archeological site files maintained by the Mississippi Department of Archives and History, Jackson, revealed 10 previously recorded cultural resources in the Dry Impoundment Area (22Md509, 22Md511, 22Md513, 22Md514, 22Md515, 22Md516, 22Md565, Indian Mound A, Indian Mound B and Indian Mound C. One previously recorded site (22Ra507) is located along the downstream dam alignment (Table 5-1). There are no previously recorded cultural resources in the two proposed spillways or the upstream dam.

5.1.2 Pearl River, Between River Miles 278 and 301

Inspection of the National Register of Historic Places and its supplements revealed that no sites within the project areas within the vicinity of Jackson were listed.

A check of the archeological site files maintained by the Mississippi Department of Archives and History, Jackson, revealed 14 previously recorded cultural resources (22H1512, 22H1549, 22H1562, 22Ra502, 22Ra508, 22Ra527, 22Ra546, the Highway 25 bridge, the Illinois Central Gulf (ICG) Railroad bridge, the Highway 80 bridge, the Jefferson Davis bridge, the Sanitary Land-fill, a "standing structure" and a "concrete foundation"), all of which are within the proposed floodway (Table 5-2). There are no previously recorded cultural resources within the two diversion channels or the two ponding areas.

5.2 On-the-Ground Survey

Twenty areas, totalling approximately 1,396 acres, were surveyed. This includes 837 acres in the vicinity of Jackson, including the floodway, diversion channels and ponding areas, and 559 acres within the two proposed dam alignments and their associated spillways. The locations of surveyed areas have been depicted on U.S.G.S. quad maps which have been sent under separate cover to the U.S. Army Corps of Engineers, Mobile District.

TABLE 5-1

RECORDED CULTURAL RESOURCES
IN THE DRY IMPOUNDMENT AREA

| Site Number | Previously Recorded | Recorded by Present survey | Reference |
|------------------|---------------------|----------------------------|--|
| LEAKE COUNTY | | | |
| Indian Mound (A) | X | - | U.S.G.S. 1961 Carthage 15' quad |
| Indian Mound (B) | X | - | Ibid |
| Indian Mound (C) | X | - | Ibid |
| MADISON COUNTY | | | |
| 22Md509 | X | - | MDAH (Natchez Trace Survey |
| 22Md511 | X | - | Rands (1958) |
| 22Md513 | X | - | MDAH (Natchez Trace Survey |
| 22Md514 | X | - | Ibid |
| 22Md515 | X | - | Ibid |
| 22Md516 | X | - | MDAH (National Park Basin Survey of 1946 |
| 22Md565 | X | - | MDAH Site Records |
| RANKIN COUNTY | | | |
| 22Ra507 | X | - | Rands (1958) |
| 22Ra556 | - | X | This report |
| NLU-82-9 | - | X | Ibid |
| NLU-82-10 | - | X | Ibid |
| NLU-82-11 | - | X | Ibid |
| NLU-82-12 | - | X | Ibid |
| NLU-82-13 | - | X | Ibid |
| NLU-82-14 | - | X | Ibid |
| NLU-82-15 | - | X | Ibid |
| NLU-82-17 | - | X | Ibid |
| NLU-82-18 | - | X | Ibid |
| NLU-82-19 | - | X | Ibid |

TABLE 5-2

RECORDED CULTURAL RESOURCES
PEARL RIVER, BETWEEN RIVER MILES 278 AND 301

| Site Number | Previously Recorded | Recorded by Present survey | Reference |
|------------------------|---------------------|----------------------------|--------------------------|
| HINDS COUNTY | | | |
| 22H1512 | X | - | Rands (1958) |
| 22H1549 | X | - | MDAH Site Records |
| 22H1562 | X | - | "Ibid" |
| NLU-82-4 | - | X | This report |
| NLU-82-5 | - | X | "Ibid" |
| NLU-82-6 | - | X | "Ibid" |
| NLU-82-7 | - | X | "Ibid" |
| Hwy. 25 Bridge | X | - | Gibbens & Nielsen (1981) |
| ICG RR Bridge | X | - | "Ibid" |
| Old Hwy. 80 Bridge | X | - | MDAH Site Records |
| Jefferson Davis Bridge | X | - | "Ibid" |
| Sanitary Landfill | X | - | "Ibid" |
| RANKIN COUNTY | | | |
| 22Ra502 | X | - | Rands (1958) |
| 22Ra508 | X | - | "Ibid" |
| 22Ra527 | X | - | Lauro (1980) |
| 22Ra546 | X | - | Rands (1958) |
| NLU-82-2 | - | X | This report |
| NLU-82-16 | - | X | "Ibid" |
| "Standing Structure" | X | - | Gibbens & Nielsen (1981) |
| "Concrete Foundation" | X | - | "Ibid" |

5.2.1 Dry Impoundment Area

Six areas, covering a total of approximately 559 acres, were surveyed. These include four areas (approximately 199 acres) in the upstream dam and associated spillway and two areas (approximately 360 acres) in the downstream dam and associated spillway. Of approximately 29 acres surveyed along the upstream dam alignment, 2.5 acres consisted of areas within the Pearl River floodplain ranging in elevation from 300 to 305 feet above mean sea level. About 170 acres of uplands, ranging in elevation from 310 to 350 feet above mean sea level, were surveyed in the associated spillway area. Approximately 12 acres within the floodplain were surveyed along the downstream dam alignment. Of approximately 348 acres surveyed within the associated spillway, 70 acres consisted of areas within the floodplain and 278 acres within the uplands.

Two previously unrecorded sites (NLU-82-9 and NLU-82-18) were located and recorded in the area of the upstream dam and associated spillway during the present reconnaissance. Nine previously unrecorded sites (22Ra556, NLU-82-10, NLU-82-11, NLU-82-12, NLU-82-13, NLU-82-14, NLU-82-15, NLU-82-17 and NLU-82-19) were located and recorded in the area of the downstream dam and associated spillway during the present reconnaissance. These are described in Appendix A and are listed in Table 5-1. Of the nine previously unrecorded sites, one (22Ra556) is located in the floodplain of the Pearl River at an elevation of about 305 feet above mean sea level. The remainder are located on a broad, upland ridge at elevations ranging from 320 to 350 feet above mean sea level.

5.2.2 Pearl River, Between River Miles 278 and 301

Fourteen areas, covering a total of approximately 837 acres, were surveyed. These consist of four areas within the proposed northernmost diversion channel, two areas within the two proposed ponding areas and eight areas within the proposed floodway in the vicinity of Jackson. Approximately 5-1/2 acres within the Pearl River floodplain, ranging in elevation between 270 and 275 feet above mean sea level, were surveyed along the northern diversion channel. No portions of the southern diversion channel were surveyed during the present reconnaissance. Within the northern ponding area, approximately 4 acres within the floodplain, situated at 265 feet above mean sea level, were surveyed. Within the southern ponding area approximately 1 acre, ranging from 265 to 270 feet above mean sea level, was surveyed. Within the floodway approximately 827 acres were surveyed. These consisted of 775 acres within the floodplain, ranging in elevation from 240 to 265 feet above mean sea level and 52 acres in the uplands, consisting of Pearl River terraces and terrace remnants at or above 270 feet above mean sea level.

Five previously recorded prehistoric sites (22Hi512, 22Hi549, 22Ra502, 22Ra527, 22Ra546) were visited. Two previously recorded prehistoric sites (22Ra508 and 22Hi562) could not be revisited because of flooding. Six new cultural resources (NLU-82-2, NU-82-4, NLU-82-5, NLU-82-6, NLU-82-7 and NLU-82-16) were located and recorded during the present reconnaissance. These are described in Appendix B and are listed in Table 5-2.

No previously recorded cultural resources are located within the two proposed diversion channels and none were located during the present reconnaissance. No previously recorded sites are located within the two proposed ponding areas. One site (NLU-82-16) was recorded in the northernmost ponding area during the present reconnaissance (Table 5-2; Appendix B). No sites were located in the southern ponding area during the present reconnaissance.

5.3 Cultural Components

The cultural components of recorded cultural resources in the Dry Impoundment Area are listed in Table 5-3 and discussed below.

5.3.1 Dry Impoundment Area

The sites are described and discussed in detail in Appendix A.

5.3.1.1 Paleo-Indian Era

No sites dating to the Paleo-Indian era have been recorded within the Dry Impoundment Area, the proposed dams and associated spillways.

5.3.1.2 Archaic Era

No sites dating to the Archaic era have been recorded within the Dry Impoundment Area, the proposed dams and associated spillways.

5.3.1.3 Post-Archaic Era

Ten sites (22Md509, 22Md511, 22Md513, 22Md514, 22Md515, 22Md516, 22Ra556, Indian Mound A, Indian Mound B and Indian Mound C) were identified as containing post Archaic components. For four of the sites (22Md509, 22Md513, 22Md514, 22Ra556) the association was based on the presence of ceramics.

Dating evidence for six of the sites (22Md511, 22Md515, 22Md516, Indian Mound A, Indian Mound B and Indian Mound C) is based on the reported presence of mounds or a village (22Md516), indicating semi-permanent or permanent occupation generally associated with a post-Archaic settlement pattern.

5.3.1.4 Historic Era

The earliest site, NLU-82-15, a section of a well drilling apparatus, bears embossed patent dates of 1905 and 1906. The next site to be occupied was possibly NLU-82-9. Dating evidence for this site is based on bottles with maker's marks found in association with this structure, indicating an occupation date during the late 1930's or early 1940's. Glass and ceramics observed at site NLU-82-17 indicate an occupation during the 1950's. In appearance and construction style, one standing structure (NLU-82-14) dates to about the 1950's. Four standing structures (NLU-82-10, NLU-82-11, NLU-82-12 and NLU-82-13) were apparently moved to their present locations or constructed since 1960 as they are not depicted on the U.S.G.S. 1960 Sharon 15' quad.

Two sites (NLU-82-18 and NLU-82-19) are represented by plots on the U.S.G.S. 1960 Sharon 15' quad, indicating they date to at least 1960. No evidence of them was located during the present reconnaissance and they are presumed destroyed by activities associated with pine tree farming.

TABLE 5-3

CULTURAL COMPONENTS OF RECORDED CULTURAL
RESOURCES IN THE DRY IMPOUNDMENT AREA

| Site Number | Brief Description | Temporal Placement | Previously Recorded | Visited by Present Survey |
|------------------|---|---------------------------|---------------------|---------------------------|
| Leake County | | | | |
| "Indian Mound" A | designated "Indian Mound" on U.S.G.S. Carthage quad | probably prehistoric | X | - |
| "Indian Mound" B | designated "Indian Mound" on U.S.G.S. Carthage quad | probably prehistoric | X | - |
| "Indian Mound" C | designated "Indian Mound" on U.S.G.S. Carthage quad | probably prehistoric | X | - |
| Madison County | | | | |
| 22Md509 | mound and midden | Post-Archaic | X | - |
| 22Md511 | mound | Post-Archaic | X | - |
| 22Md513 | large midden | Post-Archaic | X | - |
| 22Md514 | large midden | Baytown | X | - |
| 22Md515 | mound | Post-Archaic | X | - |
| 22Md516 | village site | Post-Archaic | X | - |
| 22Md565 | unknown | unknown | X | - |
| Rankin County | | | | |
| 22Ra507 | unknown | unknown | X | - |
| 22Ra556 | ceramic and lithic scatter | Post-Archaic | - | X |
| NLU-82-9 | standing structure | late 1930's to early 1940 | - | X |
| NLU-82-10 | standing structure | late 20th century | - | X |
| NLU-82-11 | trailer house | late 20th century | - | X |
| NLU-82-12 | standing structure | late 20th century | - | X |
| NLU-82-13 | standing structure | late 20th century | - | X |
| NLU-82-14 | standing structure | late 20th century | - | X |
| NLU-82-15 | section of a well drilling rig | early 20th century | - | X |
| NLU-82-17 | glass and ceramic scatter | mid-20th century | - | X |
| NLU-82-18 | structure location | historic | - | X |
| NLU-82-19 | structure location | historic | - | X |

5.3.1.5 Unknown Cultural Component

The cultural affiliation and temporal placement of two sites (22Md565 and 22Ra507) is not available.

5.3.2 Pearl River, Between River Miles 278 and 301

The cultural components of recorded cultural resources in the vicinity of Jackson, including the two diversion channels and two ponding areas, are listed in Table 5-4 and discussed in detail in Appendix B.

5.3.2.1 Paleo-Indian Era

No sites dating to the Paleo-Indian era have been recorded within the project area in the vicinity of Jackson.

5.3.2.2 Archaic Era

Three sites (22Hi512, 22Hi549 and 22Ra502) were identified as containing Archaic components. Artifacts dating to the Poverty Point period were recovered from 22Hi512. Dating evidence for 22Hi549 was based on the presence of two dart point fragments and an absence of ceramics. Site 22Ra502, consisting of three possible prehistoric mounds, has been dated to the Archaic era based on the absence of ceramics. Mound construction is, however, generally associated with semi-permanent or permanent occupation during post-Archaic times.

5.3.2.3 Post-Archaic Era

Four sites (22Hi512, 22Hi562, 22Ra527 and 22Ra546), based on the presence of ceramics, were identified as containing post-Archaic components. Site 22Ra527 was dated to the Baytown period on the basis of ceramic decorative technique and site 22Hi512, also containing an Archaic component, dates from the Poverty Point period (Archaic) through the Plaquemine period (post-Archaic).

5.3.2.4 Historic Era

Thirteen sites (NLU-82-2, NLU-82-4, NLU-82-5, NLU-82-6, NLU-82-7, NLU-82-16, the Highway 25 bridge, the ICG Railroad bridge, the old Highway 80 bridge, the Jefferson Davis bridge, the Sanitary Landfill, a "standing structure" and a "concrete foundation") date to the historic era.

The earliest site, NLU-82-16, the Legett farm, contains two structures pre-dating 1900 and four which pre-date 1912. Site NLU-82-7, a house, dates to the early 1920's. Site NLU-82-5, the remains of a burned structure, dates to the early 1930's. The Highway 80 bridge was constructed in 1925, the ICG Railroad bridge in 1927, and the Jefferson Davis bridge was constructed before 1930.

Two sites (NLU-82-4 and NLU-82-6) date between 1960 and 1981. Four sites (the Sanitary Landfill and the Highway 25 bridge, the "standing structure" and the "concrete foundation") date to the 20th century. Site NLU-82-2 will require additional research before its temporal placement can be determined.

TABLE 5-4

CULTURAL COMPONENTS OF RECORDED CULTURAL RESOURCES
PEARL RIVER, BETWEEN RIVER MILES 278 AND 301

| Site Number | Brief Description | Temporal Placement | Previously Recorded | Visited by Present Survey |
|-----------------------|--|--------------------------------|---------------------|---------------------------|
| Hinds County | | | | |
| 22H1512 | prehistoric ceramics and lithics representing small village area | Poverty Pt. through Plaquemine | X | X |
| 22H1549 | Lithic scatter | Archaic | X | X |
| 22H1562 | prehistoric ceramic and lithic scatter | Post-Archaic | X | X |
| NLU-82-4 | Standing structure | 1960 | - | - |
| NLU-82-5 | cement slab, chimneys, and two utility structures | 1930's | - | - |
| NLU-82-6 | Standing structure | 1980-1981 | - | - |
| NLU-82-7 | Standing structure | early 1920's | - | - |
| Hwy. 25 Bridge | Concrete bridge | 20th century | X | - |
| ICG R.R. Bridge | Warren Truss assembly | 1927 | X | - |
| Old Hwy. 80 Bridge | Concrete arch bridge | 1925 | X | - |
| Jeff Davis Bridge | Concrete with steel trusses | pre-1930 | X | - |
| Sanitary Landfill | Historic dump area | late 20th century | X | - |
| Rankin County | | | | |
| 22Ra502 | three mounds | possibly prehistoric | X | X |
| 22Ra508 | prehistoric site | ? | X | - |
| 22Ra527 | lithic scatter | Baytown Period | X | X |
| 22Ra546 | surface scatter of ceramics and lithics | Post-Archaic | X | X |
| NLU-82-2 | rectangular depressions | Historic period | - | - |
| NLU-82-16 | Upland South type farm complex | pre-1912 | - | - |
| "Standing Structure" | standing structure | post-1930 | X | - |
| "Concrete Foundation" | Foundation slab | post-1930 | X | - |

5.4 Geographic Distribution

5.4.1 Dry Impoundment Area

The topographic setting, elevation and U.S.G.S. quad on which these sites are located are listed in Table 5-5 and described below.

5.4.1.1 Prehistoric Resources

Of the twelve recorded prehistoric sites in the Dry Impoundment area, five (Indian Mound A, Indian Mound B, Indian Mound C, 22Md509 and 22Md513) are located on terraces or terrace remnants of the Pearl River. Site elevation ranges from 300 to 330 feet above mean sea level and average site elevation is 320 feet above mean sea level.

One site (22Ra556) is located on a terrace remnant along Spring Branch Slough, possibly a relict tributary to the Pearl River, at an elevation of 305 feet above mean sea level.

Four sites (22Md511, 22Md514, 22Md515 and 22Md565) are located on upland ridges. Site elevation ranges from 315 to 360 feet above mean sea level. The wide range in elevation for these sites is due to a lack of accurate site location information. They are recorded by quarter section (160 acres) and the range in elevation within the appropriate quarter section has been used in determining site elevation range. One site (22Ra507) is located on a ridge surrounded by swamp at an elevation of 300 feet above mean sea level.

One site (22Ra516) is located in the Pearl River floodplain in an area of swamp at an elevation of 305 feet above mean sea level.

Of the twelve recorded prehistoric sites, ten (Indian Mound A, Indian Mound B, Indian Mound C, 22Md509, 22Md511, 22Md513, 22Md514, 22Md515, 22Md565 and 22Ra556) are situated on terraces or ridges, above the general flood level. Two sites (22Ra507 and 22Ra516) are adjacent to swamps in the Pearl River floodplain.

This sample distribution is, however, biased. Most prehistoric sites located in upland topographic positions were recorded during the cultural resources survey along the Natchez Trace Parkway, which skirts the upland edge. Very little archeological work has been conducted in the Dry Impoundment Area, and only a handful of cultural resources have been recorded, most of them in the upland areas. As a result, the lowland areas are not well known. In addition, there is very little information concerning many of the previously recorded sites in the Dry Impoundment Area, proposed dams and associated spillways.

5.4.1.2 Historic Resources

Of the ten historic sites, one (NLU-82-9) is located on a finger ridge extending into a drainage floodplain at an elevation of 330 feet above mean sea level.

The remaining nine sites (NLU-82-10, NLU-82-11, NLU-82-12, NLU-82-13, NLU-82-14, NLU-82-15, NLU-82-17, NLU-82-18 and NLU-82-19) are located on

TABLE 5-5

GEOGRAPHIC DISTRIBUTION OF RECORDED CULTURAL
RESOURCES IN THE DRY IMPOUNDMENT AREA

| Site Number | Brief Description | Topographic Feature | Elevation | U.S.G.S. Quad |
|------------------|---|---|-----------|---------------|
| Leake County | | | | |
| "Indian Mound" A | designated "Indian Mound" on U.S.G.S. Carthage quad | terrace remnant | 330' | Carthage 15' |
| "Indian Mound" B | designated "Indian Mound" on U.S.G.S. Carthage quad | terrace summit | 320' | Carthage 15' |
| "Indian Mound" C | designated "Indian Mound" on U.S.G.S. Carthage quad | ridge | 325' | Carthage 15' |
| Madison County | | | | |
| 22Md509 | mound and midden | possible Pearl River terrace remnant | 320'-330' | Sharon 15' |
| 22Md511 | mound | Upland ridge | 350'-360' | Sharon 15' |
| 22Md513 | large midden | Pearl River terrace | 300-305' | Sharon 15' |
| 22Md514 | large midden | Upland ridge | 315' | Sharon 15' |
| 22Md515 | mound | ridge on upland edge | 320'-350' | Sharon 15' |
| 22Md516 | village site | Pearl River floodplain swamp | 305' | Sharon 15' |
| 22Md565 | unknown | ? ridge | 340'-360' | Sharon 15' |
| Rankin County | | | | |
| 22Ra507 | unknown | ridge surrounded by swamp in the floodplain | 300' | Sharon 15' |
| 22Ra556 | ceramic and lithic scatter | terrace remnant | 305' | Sharon 15' |
| Rankin County | | | | |
| NLU-82-9 | standing structure | finger ridge tip | 330' | Sharon 15' |
| NLU-82-10 | standing structure | upland ridge | 340'-345' | Sharon 15' |
| NLU-82-11 | trailer house | upland ridge | 340'-345' | Sharon 15' |
| NLU-82-12 | standing structure | upland ridge | 345' | Sharon 15' |
| NLU-82-13 | standing structure | upland ridge | 345' | Sharon 15' |
| NLU-82-14 | standing structure | upland ridge | 350' | Sharon 15' |
| NLU-82-15 | section of a well drilling | upland ridge | 345' | Sharon 15' |
| NLU-82-17 | glass and ceramic scatter | upland ridge | 330' | Sharon 15' |
| NLU-82-18 | structure location | upland ridge | 340' | Sharon 15' |
| NLU-82-19 | structure location | upland ridge | 320' | Sharon 15' |

upland ridges. Site elevation ranges from 320 to 350 feet above mean sea level with an average elevation of 340 feet above mean sea level.

Recorded historic resources are located above 320 feet above mean sea level, well above the level of seasonal flooding from the Pearl River.

5.4.2 Pearl River, Between River Miles 278 and 301

5.4.2.1 Prehistoric Resources

The topographic setting, elevation and U.S.G.S. quad in which these sites are located are listed in Table 5-6 and described below.

Of the seven prehistoric archeological sites recorded in the vicinity of Jackson, four (22Ra502, 22Ra527, 22Ra546, and 22Hi512) are located on the terrace or terrace remnants of the Pearl River. Site elevation ranges from 253 to 275 feet above mean sea level.

Two sites (22Hi549 and 22Hi562) are located on ridges extending into, but above the floodplains of tributaries to the Pearl River. Site elevation ranges from 245 to 280 feet above mean sea level.

One site (22Ra508) is located in dissected areas characterized by ridge and swale topography. Site elevation ranges from 260 to 270 feet above mean sea level.

In summary, seven recorded prehistoric cultural resources in the vicinity of Jackson, six (22Ra502, 22Ra527, 22Ra546, 22Hi512, 22Hi549 and 22Hi562) are situated on terraces on ridges extending above the general level of seasonal inundation. One site (22Ra508) is located in the Pearl River floodplain in an area characterized by ridge and swale topography.

This distribution is the result of: 1) prehistoric settlement is most likely to occur in areas above the general level of seasonal flooding, i.e., the ridges and terraces, and 2) sites within the floodplain tend to be small, temporary, resource-specific camps. As occupation is temporary and infrequent, little cultural material will accumulate at any given locale. Seasonal flooding has probably destroyed and removed most cultural material in the bottoms indicative of these temporary camps. Of the thirteen historic sites, only two (NLU-82-2 and NLU-82-16) are above the general flood level, although they too, are subject to periodic flooding. Sites NLU-82-4, NLU-82-5, NLU-82-6, and NLU-82-7 are hunting camps which are often abandoned due to flooding. The bridges are, by nature and design, within the floodplain.

Sites have been found in both the upland and lowland areas and it is anticipated that additional ones exist. Due to the general disturbance in the project area, however, it is believed that a large scale inventory may not locate many new sites. Also, those sites yet to be found may be in such a disturbed condition that information gained from them may be minimal.

5.4.2.2 Historic Resources

Of the thirteen recorded historic sites, one (NLU-82-2) is located on a terrace or terrace remnant of the Pearl River at an elevation of 270 feet above mean sea level.

TABLE 5-6

GEOGRAPHIC DISTRIBUTION OF RECORDED CULTURAL RESOURCES
PEARL RIVER, BETWEEN RIVER MILES 278 AND 301

| Site Number | Brief Description | Topographic Feature | Elevation | U.S.G.S. Quad |
|-----------------------|--|---|-----------|----------------------|
| Rankin County | | | | |
| 22Ra502 | three mounds | terrace remnant | 270'-275' | Jackson |
| 22Ra508 | prehistoric site | ridge and swale | 260'-265' | Jackson SE |
| 22Ra527 | lithic scatter | terrace | 253' | Jackson |
| 22Ra546 | surface scatter of ceramics and lithics | ridge and swale and Pearl River terrace | 270' | Jackson |
| NLU-82-2 | rectangular depressions | terrace remnant | 270' | Jackson |
| NLU-82-16 | Upland South type farm complex | Pearl River floodplain | 275' | Jackson and Florence |
| "Standing Structure" | standing structure | Pearl River floodplain | 265' | Jackson |
| "Concrete Foundation" | Foundation slab | Pearl River floodplain | 265' | Jackson |
| Hinds County | | | | |
| 22Hi512 | prehistoric ceramics and lithics representing small village area | eroded terrace remnant | 265' | Jackson |
| 22Hi549 | Lithic scatter | ridge slope | 280' | Jackson |
| 22Hi562 | prehistoric ceramic and lithic scatter | ridge slope | 245' | Jackson |
| NLU-82-4 | Standing structure | ridge and swale | 270' | Madison |
| NLU-82-5 | cement slab, chimneys and two utility structures | ridge and swale | 270' | Madison |
| NLU-82-6 | Standing structure | ridge and swale | 270' | Madison |
| NLU-82-7 | Standing structure | ridge and swale | 270' | Madison |
| Highway 25 Bridge | Concrete bridge | Pearl floodplain ridge and swale | ---- | Jackson |
| ICG R.R. Bridge | Warren Truss Assembly | Pearl floodplain ridge and swale | | Jackson |
| Old Hwy. 80 Bridge | Concrete arch bridge | Pearl floodplain ridge and swale | | Jackson |
| Jeff Davis Bridge | Concrete with steel trusses | Pearl floodplain ridge and swale | | Jackson |
| Sanitary Landfill | Historic dump area | Pearl floodplain ridge and swale | 240'-250' | Jackson |

Four sites (NLU-82-4, NLU-82-5, NLU-82-6, and NLU-82-7) are located on ridge surfaces within areas characterized by ridge and swale topography at an elevation of 270 feet above mean sea level.

The remaining eight sites (NLU-82-16, "standing structure", "concrete foundation", Highway 25 bridge, old ICG Railroad bridge, old Highway 80 bridge, the Jefferson Davis Bridge, and the Sanitary Landfill) are within the floodplain of the Pearl River. Bridge foundations, however, are within ridge and swale areas adjacent to the Pearl River. Site NLU-82-16 lies at an elevation of 275 feet above mean sea level. The remainder are located below an elevation of 270 feet above mean sea level.

This is an area of considerable disturbance. On the west bank of the river, the city of Jackson has encroached upon the project area. Roads, bridges, residential areas, utility lines, frequent flooding and the channelization of the Pearl River have all contributed to the general upheaval of the area.

6. DETERMINATION OF SIGNIFICANCE

Using the criteria of eligibility for inclusion on the National Register of Historic Places as defined by 36CFR66.60, the following determinations have been made. National Register eligibility status of recorded cultural resources in the Dry Impoundment Area are listed in Table 6-1. The National Register status of recorded cultural resources in the vicinity of Jackson are listed in Table 6-2. Sites from the two areas are discussed below.

6.1 Dry Impoundment Area

Based on presently available information, no sites within the area of the Dry Impoundment Area are eligible for inclusion on the National Register of Historic Places. However, eleven sites (Indian Mound A, Indian Mound B, Indian Mound C, 22Md509, 22Md511, 22Md513, 22Md514, 22Md515, 22Md516, 22Md565, 22Ra507) have apparently not been revisited by professional archeologists since they were initially recorded. Further investigation is necessary before a National Register of Historic Places determination of eligibility can be made; until that time, they are considered potentially eligible for inclusion on the National Register of Historic Places.

The remaining eleven sites (22Ra556, NLU-82-9, NLU-8-10, NLU-82-11, NLU-82-12, NLU-82-13, NLU-82-14, NLU-82-15, NLU-82-17, NLU-82-18, and NLU-82-19) are considered not eligible for inclusion on the National Register of Historic Places.

6.2 Pearl River, Between River Miles 278 and 301

One site, NLU-82-16, the Legett farm complex, is unique in that it may represent one of the few remaining Upland South style farm complexes in this area. It meets the age criteria and is in good condition. It is, therefore, considered potentially eligible for inclusion on the National Register of Historic Places.

Seven cultural resources (22Hi562, 22Ra502, 22Ra508, NLU-82-2, the Illinois Central Gulf Railroad bridge, the old Highway 80 bridge, and the Jefferson Davis bridge) are considered potentially eligible for inclusion on the National Register of Historic Places. Sites 22Hi562 and 22Ra508 were flooded during the present survey and their nature could not be determined. One site, 22Ra502, is considered potentially eligible until further investigation is conducted to determine the nature and origin of the stratigraphy of Mound B. Until such time as it is known how many examples of these bridges survive in Mississippi, the ICG Railroad bridge, the Old Highway 80 bridge and the Jefferson Davis bridge are considered potentially eligible for inclusion on the National Register of Historic Places.

The remaining twelve cultural resources (22Hi512, 22Hi549, 22Ra527, 22Ra546, NLU-82-4, NLU-82-5, NLU-82-6, NLU-82-7, the Highway 25 bridge, the Sanitary Landfill, the "standing structure" and the "concrete foundation") are considered not eligible for inclusion on the National Register of Historic Places.

TABLE 6-1

NATIONAL REGISTER OF HISTORIC PLACES ELIGIBILITY OF RECORDED
CULTURAL RESOURCES IN THE DRY IMPOUNDMENT AREA

| Site Number | NATIONAL REGISTER | | |
|------------------|-------------------|--------------|----------------------|
| | Eligible | Not Eligible | Potentially Eligible |
| Leake County | | | |
| "Indian Mound" A | - | - | X |
| "Indian Mound" B | - | - | X |
| "Indian Mound" C | - | - | X |
| Madison County | | | |
| 22Md509 | - | - | X |
| 22Md511 | - | - | X |
| 22Md513 | - | - | X |
| 22Md514 | - | - | X |
| 22Md515 | - | - | X |
| 22Md516 | - | - | X |
| 22Md565 | - | - | X |
| Rankin County | | | |
| 22Ra507 | - | - | X |
| 22Ra556 | - | X | - |
| NLU-82-9 | - | X | - |
| NLU-82-10 | - | X | - |
| NLU-82-11 | - | X | - |
| NLU-82-12 | - | X | - |
| NLU-82-13 | - | X | - |
| NLU-82-14 | - | X | - |
| NLU-82-15 | - | X | - |
| NLU-82-17 | - | X | - |
| NLU-82-18 | - | X | - |
| NLU-82-19 | - | X | - |

TABLE 6-2

NATIONAL REGISTER OF HISTORIC PLACES ELIGIBILITY
OF RECORDED CULTURAL RESOURCES
PEARL RIVER, BETWEEN RIVER MILES 278 AND 301

| Site Number | NATIONAL REGISTER | | |
|---------------|-------------------|--------------|----------------------|
| | Eligible | Not Eligible | Potentially Eligible |
| Hinds County | | | |
| 22Hi512 | - | X | - |
| 22Hi549 | - | X | - |
| 22Hi562 | - | - | X |
| NLU-82-4 | - | X | - |
| NLU-82-5 | - | X | - |
| NLU-82-6 | - | X | - |
| NLU-82-7 | - | X | - |
| Hwy. 25 | | | |
| Bridge | - | X | - |
| ICG R.R. | | | |
| Bridge | - | - | X |
| Old Hwy. | | | |
| 80 Bridge | - | - | X |
| Jefferson | | | |
| Davis Bridge | - | - | X |
| Sanitary | | | |
| Landfill | - | X | - |
| Rankin County | | | |
| 22Ra502 | - | - | X |
| 22Ra508 | - | - | X |
| 22Ra527 | - | X | - |
| 22Ra546 | - | X | - |
| NLU-82-2 | - | - | X |
| NLU-82-16 | - | - | X |
| "Standing | | | |
| Structure" | - | X | - |
| "Concrete | | | |
| Foundation" | - | X | - |

7. RECOMMENDATIONS

7.1 Dry Impoundment Area

Very little archeological work has been conducted in the Dry Impoundment Area, and only a handful of cultural resources have been recorded, most of them during archeological survey on the upland edges along the Natchez Trace Parkway, which borders the northern and western margins of the Dry Impoundment Area. As a result, the lowland areas are not well known. However, three "Indian Mounds" are depicted on the U.S.G.S. 1961 Carthage 15' quad and conversation with local residents in the immediate area has indicated that many other mounds exist in the Pearl River floodplain. In addition, there is very little information concerning many of the previously recorded sites in the project area.

7.1.1 Upstream Dam and Associated Spillway

If the upstream dam and associated spillway are selected for construction, it is recommended that areas of potential flooding, particularly below the 320 foot contour interval, be surveyed in order to locate and assess the significance (i.e., eligibility for inclusion on the National Register of Historic Places) of the unrecorded cultural resources.

The slope angle between the 320 to 330 foot contour is generally acute and, therefore, less likely to have been intensively settled during the pre-historic and historic eras. It is anticipated that a much less intense reconnaissance will be required in this area.

The upland areas to be potentially impacted by spillway construction may provide important information regarding settlement patterns and activities during the historic era. It is believed, however, that intensive research of the historic records, including county land conveyance and tax records, will yield more substantial and significant results than an on-the-ground reconnaissance designed to locate and record historic cultural resources. This results from the fact that structures in this area are usually raised above the ground surface on piers and, upon their removal or demolition, nothing remains other than unstratified, surface scatterings of brick and glass fragments. Few, if any, subsurface structures such as cellars are anticipated to occur in this area. It is believed that prehistoric sites in this area may be too disturbed, especially by pine tree farming and associated landscaping, to provide valuable data. Therefore, it is suggested that future archeological work be confined mainly to the lowland areas.

It is also recommended that areas along the upstream dam not previously surveyed for cultural resources be checked. It is also suggested that the eleven previously recorded cultural resources be revisited and assessed in order to make a determination of eligibility for inclusion on the National Register of Historic Places.

7.1.2 Downstream Dam and Associated Spillway

If the downstream dam and associated spillway are selected for construction, the same recommendations are offered as for the upstream dam and associated spillway.

Selection of this dam will potentially involve the flooding of the Tannegusha Creek drainage basin and the basins of its tributaries, including Purnell Creek, Rollison Creek, Red Cane Creek, Hurricane Creek, Pole Branch, and Deer Creek. It is, therefore, additionally recommended that this drainage system be surveyed for cultural resources.

7.2 Pearl River, Between River Miles 278 and 301

This is an area of considerable disturbance. On the west bank of the river, the city of Jackson has encroached upon the project area. Roads, bridges, residential areas, utility lines, and the channelization of the Pearl River have all contributed to the general upheaval of the area. Sites have been found in both the upland and lowland areas and it is anticipated that additional ones exist. Due to the general disturbance in the project area, however, it is believed that a large scale inventory may not locate many new sites. Also, those sites yet to be found may be in such a disturbed condition that information gained from them may be minimal.

7.2.1 Diversion Channels

Given the low-lying nature and susceptibility of areas traversed by the proposed northern and southern diversion channels to frequent flooding, it is highly unlikely that the area was extensively settled during the prehistoric era, and historic settlement today in the area is virtually non-existent. No further cultural resources investigation is recommended for areas traversed by the northern diversion channel. It is, however, recommended that the area along Richland Creek traversed by the northernmost diversion channel be monitored during channel excavation in the event that buried cultural remains are encountered.

7.2.2 Ponding Areas

One site in the northernmost ponding area, the Legett farm complex (NLU-82-16), is considered eligible for inclusion on the National Register of Historic Places. It potentially should not be disturbed by the proposed action. The remainder of the area is generally low-lying and not likely to have been intensively utilized during the prehistoric era. No additional cultural resources investigation is recommended for areas beyond the location of site NLU-82-16.

Terrain within the southernmost ponding area is relatively more elevated than the northern ponding area, ranging in elevation from 250 feet along its southern edge, adjacent to Howard Creek, to 270 feet above mean sea level along its eastern edge, into which extend the tips of several ridges. As the area lies above the general level of seasonal flooding, it is likely that cultural remains will be located in the area, especially on the ridge tips. It is recommended that the southern ponding area be surveyed for cultural remains prior to modification of the area.

7.2.3 Floodway in the Vicinity of Jackson

Five separate areas along the Pearl River are considered for flood clearing operations. Under this plan, both banks of the river would be cleared in order to provide a floodway varying in width from 1500 feet (457.3

meters) to 1700 feet (518.3 meters) on each side of the centerline. All trees and brush would be removed but the root systems would not be grubbed. The cutover bank would be seeded to prevent scour from overbank flows and the banks at bridge footings would be protected by riprap in order to prevent erosion from increased velocities.

Twenty cultural resources have been recorded within the area of the proposed floodway between River Mile 278 and 301. Of these, seven (22H1562, 22Ra502, 22Ra508, NLU-82-2, the ICG Railroad bridge, the old Highway 80 bridge and the Jefferson Davis bridge) are considered potentially eligible for inclusion on the National Register of Historic Places. Two of these (22H1562 and 22Ra508) were flooded during the present reconnaissance and could not be evaluated. It is recommended that they be visited and assessed in terms of their eligibility for inclusion on the National Register of Historic Places prior to project implementation.

One previously recorded site, 22Ra502, was revisited and investigated during the present reconnaissance. Further investigation is recommended at this site to determine the nature and origin of the observed stratigraphy in Mound B. Trenching or the placement of contiguous excavation units on the mound, designed to expose a larger section of profile, is recommended. Until the nature of this stratigraphy is understood, the site is considered potentially eligible for inclusion on the National Register of Historic Places.

Five previously recorded sites (22H1512, 22H1549, 22Ra527, 22Ra546 and the Sanitary Landfill) were revisited and investigated during the present reconnaissance. It was determined that they had been completely destroyed or highly disturbed. They are, therefore, considered not eligible for inclusion on the National Register of Historic Places.

One site, NLU-82-2, was recorded during the present reconnaissance and consists of a series of five rectangular depressions. The site may represent the remains of fortification associated with the Union siege of Jackson during the Civil War, but further historical research is necessary to verify this possibility. Until such time as its function and significance have been documented, it is considered potentially eligible for inclusion on the National Register of Historic Places.

It is suggested that the ICG Railroad bridge, the old Highway 80 bridge, the Highway 25 bridge and the Jefferson Davis bridge be further studied and documented in terms of their uniqueness. Until such time as it is known how many examples of these bridges remain in Mississippi, they should be considered potentially eligible for inclusion on the National Register of Historic Places.

The remaining six cultural resources (NLU-82-4, NLU-82-5, NLU-82-6, NLU-82-7, a "standing structure" and a "concrete foundation") are not eligible for inclusion on the National Register of Historic Places and no further investigation of them is recommended. The standing structures (NLU-82-4, NLU-82-5, NLU-82-6, NLU-82-7 and the "standing structure") lack significant architectural features and do not meet the age criteria for inclusion on the National Register of Historic Places. No further investigation of them is recommended. The "concrete foundation" possesses no unique architectural features and is considered not eligible for inclusion on the National Register of Historic Places.

Little information is likely to be obtained from additional field reconnaissance within the floodway and it is recommended that only limited additional research be conducted, concentrating on the Pearl River terraces and terrace remnants located, generally, at and above 270 feet above mean sea level.

REFERENCES CITED

REFERENCES CITED

ADAIR, JAMES

- 1775 History of the American Indians. E. and C. Dilly. London. Reprinted in 1930 by Promontory Press. N. Y. (Samuel Cole Williams, Editor).

This important primary source provides valuable information concerning Adair's encounters with various Indian groups of the Southeast. Adair spent several years as a trader to the Chickasaw nation in what is now north Mississippi. During this time he had the opportunity to observe the Choctaw Indians of the upper Pearl River area. This work provides the researcher with valuable first-accounts of the habits and customs of the Choctaw as well as other Southeastern Indian groups.

ADAMS, HORACE

- 1950 Military Operations In and Around Jackson, Mississippi During the Civil War. M.A. thesis, University of Mississippi. Oxford.

This book documents the various military operations which occurred in the city of Jackson, Mississippi and vicinity during the Civil War. Events such as the burning of Jackson and the takeover of railroads by the Union army are emphasized.

ADKINS, HOWARD G.

- 1972 The Historical Geography of Extinct Towns in Mississippi. Ph.D. Dissertation, The University of Tennessee. Knoxville.

This dissertation discusses the towns in Mississippi which have become extinct and the reasons for this phenomenon. Divisions such as transportation towns, trade towns and industrial towns are made. Each major town category is discussed according to its function and apparent causes for extinction. Figures and tables illustrate the location of these towns and other relevant data pertaining to the discussion. No towns in the project area are discussed.

AMIS, ALFONSO

- 1934 Recollections of Social Customs in Newton and Scott Counties, Mississippi. Fifty Years Ago. Dement Printing Company. Meridian, Mississippi.

This book presents a general overview of the social lifeways of Newton and Scott Counties during the end of the nineteenth century. Although no events specific to the project area are discussed, this book provides valuable information concerning social customs in Mississippi during this period.

ANDERSON, RACHEL ROACH

- 1967 A History of Madison County, Mississippi From Its Earliest Times Through the Civil War. M.A. Thesis, Mississippi College. Clinton.

This thesis presents a general history of events in Madison County during Ante-Bellum times and the Civil War. Topics such as early settlers; patterns of land ownership, slavery and the plantation system; early transportation, the depression and social and cultural life are discussed in Chapter III which is entitled "Ante-Bellum Madison County." Chapter I discusses the county geographically and Chapter II provides data concerning the Indians (prehistoric and historic) of the area. Madison County is depicted on a County Outline State Map.

BACON, CHARLES MADISON

- 1959 A History of Hinds County, Mississippi During Reconstruction, 1865-1875. M.A. Thesis, Mississippi College. Clinton.

This thesis describes how the process of reconstruction was carried out in Hinds County, the hardest hit county in the study area by the Civil War. Background information concerning the creation of the county and some of the events leading up to the Civil War are provided in Chapter I - Hinds County, 1821-1865. The economic conditions of the county immediately following the war and the political climate are discussed according to their relationship with the process of reconstruction. Major problems to the reconstruction effort such as transportation, conflict between civil and military authority and the emancipation of slaves are treated. An undated map of Mississippi prior to 1865, and a map of Hinds County in 1865 as well as some tables are also included.

BAILEY, ROBERT J. and PRISCILLA M. LOWREY (eds)

- 1975 Historic Preservation in Mississippi: A Comprehensive Plan. Mississippi Department of Archives and History. Jackson.

This book presents the plan adopted by the state of Mississippi for the preservation of its cultural resources (prehistoric and historic). Major sites are discussed and illustrated. No sites in the study area are discussed.

BAUGHMAN, W. T.

- 1971 Rankin County: Geology and Mineral Resources. Mississippi Geological Survey Bulletin 115.

This volume provides a detailed discussion of the geology and mineral resources of Rankin County, Mississippi. Illustrated.

BEAVERS, R. C.

- 1978 An Archeological Reconnaissance and Assessment of the Sabine River, north shore of Sabine Lake to the Gulf Intracoastal Waterway: Cameron, Calcasieu Parishes, Louisiana and Orange County, Texas. Archeological and Cultural Research Program, Research Report No. 1.

BENHAM, EVELYN

- 1976 Pearl River "Talcatcha." In The Journal of Mississippi History, Vol. 38, No. 2, pp. 213-219.

This article presents an outline of some of the major events in the history of the Pearl River. It begins with Bienville's visit to the river in 1699, and ends with mention of S.G. Thigpen's book, Next Door To Heaven, which was published in 1965.

BICKER, A. R.

- 1969 Copiah County: Geology and Mineral Resources. Mississippi Geological Survey Bulletin No. 110.

BLACK, ROBERT C., III

- 1952 The Railroads of the Confederacy. University of North Carolina Press. Chapel Hill.

This volume presents information concerning the major southern railroads and their part in the Civil War. The importance of Jackson as a railroad center is discussed.

BLAIR, W. F.

- 1950 The Biotic Provinces of Texas. In Texas Journal of Science, Vol. II, No. 1, pp. 93-117.

BRAIN, JEFFERY P.

- 1971 The Lower Mississippi Valley in North America Prehistory. Manuscript prepared for the National Park Service, Southeast Region, and the Arkansas Archeological Survey.

This volume provides a general overview of the prehistory of the Lower Mississippi Valley. Although it does not deal with sites in the project area, the chronology provided in this report is useful to a better understanding of the Southeast in general.

BRANDFON, ROBERT L.

- 1967 Cotton Kingdom of the New South. Harvard University Press. Cambridge, Massachusetts.

BROWN, CALVIN S.

- 1926 Archaeology of Mississippi. Mississippi Geological Survey (E.N. Lowe, Director). University, Mississippi.

This report presents a general overview of the archeology of Mississippi as it was understood in 1926. Archeological sites and artifacts from various parts of the state are discussed. This work was completed prior to the assigning of official site numbers. Sites mentioned in this report are according to general location and common name only. Brown states that he obtained artifacts from Hinds County, but they are not described. Names of some of the first people to practice archeology in Mississippi are given and a brief overview of mounds in general is presented.

BROWN, EUGENE RICHARD

- 1967 A History of Scott County, Mississippi. M.A. Thesis, Mississippi College. Clinton.

This book provides a very general history of Scott County. No events specific to the project area are mentioned.

BURDEN, E., D. WISEMAN, N. R. WEINSTEIN and S. GAGLIANO

- 1978 Cultural Resources Survey of the Lacassine National Wildlife Refuge, Cameron Parish, Louisiana. Coastal Environments, Inc., Baton Rouge.

BURKHARDT, STANLEY DAVID

- 1975 Louisiana Railroads During Reconstruction, 1865-1877. M.A. Thesis, Northeast Louisiana University. Monroe.

This thesis discusses the physical efforts used to restore Louisiana's railroads during the 12 years of reconstruction following the Civil War. The New Orleans, Jackson and Great Northern Railroad, which passed through Jackson, is discussed. General information concerning the importance of railroads to the South is presented.

BYRD, KATHLEEN M.

- 1974 Tchefuncte Systems Patterns: Morton Shell Mound, Iberia Parish, Louisiana. M.S. thesis, Louisiana State University. Baton Rouge.

This thesis documents the results of work at the Morton Shell Mound, a Tchefuncte site in Iberia Parish, Louisiana. Although this site is outside the project area, the author's discussion of Tchefuncte culture is relevant to the present study.

BYRD, KATHLEEN M. and ROBERT W. NEUMAN

- 1978 Archeological Data Relative to Prehistoric Subsistence in the Lower Mississippi River Alluvial Valley. In Geoscience and Man, Vol. 19, pp. 9-21. Louisiana State University Press. Baton Rouge.

This article documents the current knowledge of subsistence patterns for the Lower Mississippi Valley. Major sites are discussed in terms of the kinds of subsistence data for each site. Although no sites in the project area are mentioned, this article is relevant to a better understanding of the Southeast in general.

CALDWELL, JOSEPH R.

- 1958 Trend and Tradition in the Eastern United States. American Anthropologist, Vol. 60, No. 6, Pt. 2, American Anthropological Memoir, No. 88 and Illinois State Museum Scientific Papers, Vol. 10. Menasha.

This article presents a general discussion of the archeology of the Southeast. Although it does not deal with the project area, it provides useful information for this study.

CALDWELL, JOSEPH R.

1965 Primary Forest Efficiency. In Southeastern Archaeological Conference Bulletin, No. 3, pp. 6-69. Cambridge.

This article deals with subsistence strategies as employed in the Mississippi Valley during prehistoric times. Although this article does not deal with the project area it provides useful information for this study.

CAMPBELL, BERNARD G.

1979 Humankind Emerging. Little, Brown and Company. Boston.

This physical anthropology book provides a detailed overview of man's evolution from the earliest dated fossil remains to the present. It briefly touches on the New World.

CLAIBORNE, JOHN FRANCIS HAMTRANCK

1880 Mississippi, As A Province, Territory and State With Biographical Notices of Eminent Citizens, Vol. I. Power and Barksdale, Publishers and Printers. Jackson. Reprinted in 1964 by Louisiana State University Press. Baton Rouge.

This book provides a narrative history of Mississippi from the earliest European explorers of the area and the establishment of the first settlements, through the creation of the Mississippi Territory in 1798 and admission into the Union as a state in 1817. Biographies of prominent early Mississippians are included.

CONANT, ROGER

1958 Field Guide to Reptiles and Amphibians of Eastern North America. Houghton Mifflin Co., Boston.

CONNAWAY, JOHN M. and SAMUEL O. MCGAHEY

1970 Archaeological Survey and Salvage in the Yazoo-Mississippi Delta and in Hinds County, 1968-1969. Mississippi Archaeological Survey, Report 1. Jackson.

This report presents the results of an archeological survey of Hinds County which was conducted by John M. Connaway and Samuel O. McGahey of the Mississippi Department of Archives and History from April 28, 1969 to June 30, 1969. A total of 27 new sites in the county were recorded, none of which is in the project area. There is no listing in this report of the sites recorded during the survey. Only a few of the more important ones are named and discussed. Although it is stated in the report that some of the sites were added to the National Register of Historic Places, it is not mentioned how many. No mention is made of how the sites were evaluated. If testing was conducted it is not stated. No maps and or figures are included.

COTTERILL, ROBERT SPENCER

1922 The Beginnings of Railroads in the Southwest. In Mississippi Valley Historical Review, Vol. 8, No. 4, pp. 318-326.

COTTERILL, ROBERT SPENCER

This article provides a general history of the beginning of railroads in the Southwest. Major lines are discussed in terms of origin, growth and demise. Several railroads which passed through Jackson, Mississippi are identified. A map depicting the routes of these lines is presented.

- 1924 Southern Railroads, 1850-1860. In Mississippi Valley Historical Review, Vol. 10, No. 4, pp. 396-405.

This article provides a detailed discussion and comparison of two of the more important railroads of the South, the Mobile and Ohio and the New Orleans, Jackson and Great Northern. Brief mention is made of the latter and its Jackson station.

CROUSE, NELLIS M.

- 1972 Lemoyne d'Iberville: Soldier of New France. Kennikat Press. New York.

This book is a narrative of Iberville's career as explorer and soldier. His three journeys to Louisiana are discussed and a map of the state depicting French settlements is presented.

CRUSOE, DONALD L. and JAMES LAURO

- 1980 Cultural Resources Survey of the I-20 Pearl River "Overpass," Rankin County, Mississippi. Letter report on file at the Mississippi Department of Archives and History. Jackson.

This letter report documents the findings of a cultural resources survey of the I-20 Pearl River overpass in Rankin County. One site (22Ra527) was relocated and no new sites were recorded. It is not mentioned if testing was conducted. A map of the study area is included.

CUMING, FORTESCUE

- 1904 Sketches of A Tour To The Western Country, Through The States of Ohio and Kentucky; A Voyage Down the Ohio and Mississippi Rivers, and A Trip Through The Mississippi Territory, and Part of West Florida, Commenced At Philadelphia in The Winter of 1807, and Concluded in 1809. In Early Western Travels, 1748-1846. Edited by Reuben G. Thwaites. Cleveland.

This volume describes the observations of Cuming's travels through the Mississippi Territory during the early nineteenth century. Although he did not pass through the project area, his accounts of the geography and lifeways of the area are relevant to a better understanding of life in Mississippi during this period.

CUTLER, HUGH C. and LEONARD W. BLAKE

- 1970 Food Plant Remains From Nine Prehistoric Indian Sites in the Yazoo Delta Area of Mississippi. In Mississippi Archaeological Association Newsletter, Vol. 5, No. 2.

CUTLER, HUGH C. and LEONARD W. BLAKE

This volume documents food plant remains from sites in the Yazoo Delta Area of Mississippi. Although none of these sites is in the project area, this information is relevant to a better understanding of subsistence patterns of the Baytown period.

DAVIS, EDWIN ADAMS

1959 Louisiana: The Pelican State. Louisiana State University Press. Baton Rouge.

This book provides a very general overview of the history of Louisiana and is written for a juvenile audience. Maps and illustrations are provided.

DELEON, MARK

1978 Cultural Resource Survey of Proposed Campground Facilities at Coal Bluff Park, Scott County, Mississippi. Prepared for Pearl River Basin Development District. Letter report on file at the Mississippi Department of Archives and History. Jackson.

This letter report documents the results of a cultural resources survey of approximately 10 acres of land on the east side of the Pearl River in Scott County. The field reconnaissance consisted entirely of surface collecting and no sites were recorded. A map is included.

DICE, L. R.

1943 The Biotic Provinces of North America. University of Michigan Press, Ann Arbor.

ESTAVILLE, LAWRENCE E., JR.

1973 A Strategic Railroad: The New Orleans, Jackson and Great Northern in the Civil War. In Louisiana History, Vol. 14, No. 2, pp. 117-136.

This article presents a general history of the New Orleans, Jackson and Great Northern Railroad and the part it played during the Civil War and Reconstruction. Brief mention is made of Jackson, Mississippi in regard to its relationship with the railroad. A map depicting the route of this railroad and some illustrations are presented.

ETHRIDGE, GEORGE

1938 Mississippi: A History. The Historical Record Association. Hopkinsville.

This book provides a very general history of Mississippi. No accounts involving the project area are given, although Jackson and the Pearl River are briefly mentioned.

FAGAN, BRIAN M.

1975 Avenues to Antiquity. (Readings from Scientific American). W.H. Freeman and Company. San Francisco.

FAGAN, BRIAN M.

This book is a collection of articles dealing with major archeological sites in both the Old and New Worlds. Some of the articles contain elements dealing with Paleo-Indian times relevant to all of North America.

FEDERAL WRITERS' PROJECT OF THE WORKS PROGRESS ADMINISTRATION: STATEWIDE

SOURCE MATERIAL

1936a Hinds County Folklore. Vol. 114. Unpublished manuscript on file at the Mississippi Department of Archives and History. Jackson.

1936b Madison County Folklore. Vol. 116. Unpublished manuscript on file at the Mississippi Department of Archives and History. Jackson.

1936c Rankin County Folklore. Vol. 118. Unpublished manuscript on file at the Mississippi Department of Archives and History. Jackson.

Information concerning the folklore of various counties in Mississippi was gathered during the 1930's by the Work Projects Administration. Virtually all of this information is assembled in handwritten or typewritten manuscripts located in folders or boxes in the Mississippi Department of Archives and History. Nothing concerning the project area was observed.

1949 Mississippi: A Guide to the Magnolia State. American Guide Series. Fourth Edition. Hasting's House. New York.

This book presents a general overview of the history of Mississippi from the days of the early explorers to 1949. This illustrated volume discusses the major cities, development of commerce and agriculture and gives brief mention to some of the leading citizens of the past.

FIGLEY, CHARLES A.

1968 The Soc Site, 3WH34. In Arkansas Archaeological Society Bulletin, Vol. 9, Nos. 3, 4, pp. 40-58.

This report documents the archeology of the Soc Site in Arkansas. Although this site is out of the project area, information concerning subsistence patterns of the Baytown period has been obtained. This information is useful towards a better understanding of the Baytown period in general.

FISK, H. N.

1944 Geological Investigation of the Alluvial Valley of the Lower Mississippi River. Corps of Engineers, Vicksburg.

FLAGLER, COL. C. A. F.

1913 Letter from Lt. Colonel C. A. F. Flagler, Corps of Engineers, to the Chief of Engineers, U. S. Army - dated May 13, 1913. In House of Representatives Document No. 223 63D Congress, 1st Session.

FLAGLER, COL. C. A. F.

This letter was written by Lieutenant Colonel C. A. F. Flagler of the Corps of Engineers to the Chief of Engineers, United States Army in 1913. The purpose of the letter was to present the findings of a preliminary examination of the Pearl River from Jackson, Mississippi to its mouth. Topics discussed include previous examinations and projects associated with Pearl River, geographical features of the river, present conditions of the river, traffic on the river (past and present) and improvements suggested for the river.

FORD, JAMES A.

- 1936 Analysis of Indian Village Site Collections from Louisiana and Mississippi. State of Louisiana Department of Conservation Anthropological Study No. 2.

This report presents an analysis of artifact collections made between 1927 and 1935 by Moreau B. Chambers and James A. Ford. A brief culture sequence is presented and the volume is illustrated. No sites in the project area are discussed.

- 1938 A Chronological Method Applicable to the Southeast. In American Antiquity, Vol. 3, No. 3, pp. 260-264.

The emphasis of this article is the presentation of Ford's chronological model of the Southeast based on information collected in Louisiana and Mississippi by James A. Ford and Moreau B. Chambers between 1927 and 1935. No sites in the project area are discussed.

FORD, JAMES A. and GEORGE I. QUIMBY, JR.

- 1945 The Tchefuncte Culture, and Early Occupation of the Lower Mississippi Valley. Society for American Archeology, Memoir 2.

This report presents a detailed discussion of the Tchefuncte culture. Although none of the sites discussed is in the project area, the information included in the report is necessary for a general understanding of the Tchefuncte culture.

FORD, JAMES A., PHILLIP PHILLIPS and W. G. HAAG

- 1955 The Jaketown Site in West Central Mississippi. American Museum of Natural History, Anthropology Papers. Vol. 45, Pt. 1.

This report presents a detailed discussion of the Jaketown Site. Although this site is not in the project area, it is important in terms of a better understanding of the Poverty Point culture in general.

FORD, JAMES A. and CLARENCE H. WEBB

- 1956 Poverty Point, A Late Archaic Site in Louisiana. Anthropological Papers, Vol. 46. American Museum of Natural History.

FORD, JAMES A. and CLARENCE H. WEBB

This report presents a detailed discussion of the Poverty Point Site in Louisiana. Although this site is not in the project area, it is important in terms of a better understanding of the Poverty Point culture in general.

GAGLIANO, SHERWOOD M., SUSAN FULGHAM, and BERT RADER

1980 Cultural Resources Studies in the Pearl River Mouth Area, Louisiana - Mississippi. Chef Menteur and Rigolets Passes Hurricane Control Structures Orleans and St. Tammany Parishes, Louisiana. Report prepared for U.S. Army Corps of Engineers, New Orleans District by Coastal Environments, Inc., Baton Rouge, Louisiana. Unpublished report on file at the Department of Culture, Recreation and Tourism, Division of Archeology and Historic Preservation, Baton Rouge.

This report documents an intensive field survey and evaluation of cultural resources within five areas of proposed construction in the eastern end of the Pontchartrain Basin near the mouth of the Pearl River. Although the five areas studied are not within the Pearl River Basin, an overview study of the prehistory, history, Quaternary geology and natural setting of the Pearl River mouth area was prepared. Surface collecting and subsurface testing were conducted. No cultural resources will be affected by construction activities. A series of maps depicting the paleogeography of the region from the Early Wisconsin interglacial stage to the post-Civil War period is provided.

GIBBENS, DOTTIE and JERRY NIELSEN

1981 Cultural Resources Survey of Selected Flood Control Plans, Pearl River, near Jackson, Mississippi. Letter report on file at the Mississippi Department of Archives and History. Jackson.

This letter report documents the results of a cultural resources survey of 2.4 acres on the west bank of the Pearl River immediately upstream and downstream from the Highway 25 bridge, a 70 acre disposal site one half mile east of the river, the Illinois Central Gulf Railroad bridge and embankment and a proposed alignment for a railroad spur. Inspection was carried out through surface collecting and testing. None of the sites recorded during this survey is considered eligible for inclusion on the National Register of Historic Places. A map is included.

GIBSON, JON L.

1968 Russell Landing: A North Louisiana Phase of the Tchefuncte. M.A. Thesis, Louisiana State University. Baton Rouge.

This report discusses the Tchefuncte period in terms of its expression in northern Louisiana. Although this is out of the project area, the information in this report is useful to a better understanding of the Tchefuncte period in general.

GIBSON, JON L.

- 1974a The Rise and Decline of Poverty Point. In Louisiana Archaeology, Vol. 1, pp. 8-36.

This article presents a general overview of the Poverty Point culture. No sites in the project area are discussed. Illustrated.

- 1974b Poverty Point, The First North American Chiefdom. In Archaeology, Vol. 27, No. 2, pp. 96-105.

This article presents a general overview of the Poverty Point culture. No sites in the project area are discussed. Illustrated.

GOODSPEED PUBLISHING COMPANY

- 1891 Biographical and Historical Memoirs of Mississippi, Embracing an Authentic and Comprehensive Account of the Chief Events in the History of the State and A Record of the Lives of Many of the Most Worthy and Illustrious Families and Individuals. The Goodspeed Publishing Company. Chicago.

This work contains over 25,000 individual names of Mississippians. Most of the individuals discussed were members of nineteenth century Mississippi families; some never lived in the state but were connected to Mississippians as relatives. Information concerning towns, counties and cities is presented in the historical section.

GRIFFIN, JAMES B.

- 1967 Eastern North American Archaeology: A Summary. In Science, Vol. 156, No. 3772, pp. 175-191.

This article presents a general discussion of the archeology of the Southeast. Although it does not deal with sites in the project area, it provides information relevant to the present study.

HAAG, WILLIAM G.

- 1971 Louisiana in North American Prehistory. Melanges, No. 1, pp. 1-45. Museum of Geoscience, Louisiana State University. Baton Rouge.

This booklet provides a general overview of the prehistory of Louisiana. Although no sites in the project area are included, the chronology presented is valuable to a better understanding of the Southeast in general.

- 1978 A Prehistory of the Lower Mississippi River Valley. In Geoscience and Man: Man and Environment in the Lower Mississippi Valley, Vol. 19, pp. 1-18. School of Geoscience, Louisiana State University. Baton Rouge.

This article provides a general overview of the prehistory of the Lower Mississippi Valley. Although no sites in the project area are included, the chronology presented is valuable to a better understanding of the Southeast in general.

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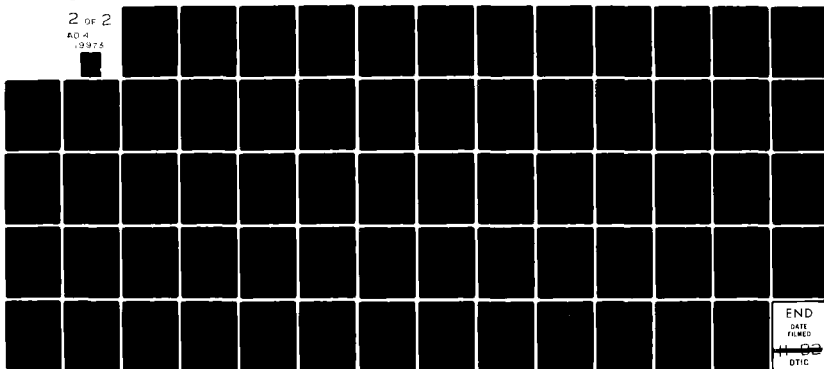
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HALL, JAMES

- 1801 A Brief History of the Mississippi Territory, To Which Is Prefixed A Summary View of The Country Between The Settlements on The Cumberland River and The Territory. Printed by Francis Couper. Salisbury.

This volume presents first-hand information collected by James Hall, a Presbyterian clergyman, educator and patriot who made a missionary journey in 1800-1801 throughout the state. This first history of the territory of Mississippi was a by-product of Hall's journey down the Natchez Trace to minister to the scattered Presbyterian congregations in the area. Contents include a description of the country and boundaries of the territory; the time of its settlement; the massacre of the French; the present form of government; soil, climate and produce; manners, customs, and character; population; and trade and commerce.

HARRIS, BEN CHARLES

- 1968 Eat The Weeds. Barre Publishers. Barre, Massachusetts.

HEARTFIELD, PRICE AND GREENE, INC.

- 1982 A Cultural Resources Inventory of the Pearl River Basin, Louisiana and Mississippi (2 Volumes). Prepared for the U.S. Army Corps of Engineers, Mobile District by Heartfield, Price and Greene, Inc. Monroe, Louisiana.

This report documents the prehistory and history of the Pearl River Basin from the Ross Barnett Reservoir to its mouth. The culture sequence of the Basin is documented in addition to problems and gaps in the record. Recommendations for future research are made and an annotated bibliography is provided. Illustrated.

HURT, MARSHALL

- 1939 Half A Century With Jackson, 1889-1939. Jackson-State National Bank. Jackson.

This volume provides a general history of Jackson, Mississippi from 1889-1939. The project area is not included.

HYATT, ROBERT D.

- 1977 Cultural Resources Survey of Proposed Mississippi Highway 25 from Ludlow to Wiggins (98-0056-01-029-10), Leake County. Letter report on file at the Mississippi Department of Archives and History. Jackson.

This letter report documents the findings of a cultural resources survey of 10.397 miles in Leake County. No sites were recorded during a "ground reconnaissance" survey. A map of the survey area is included.

IRVING, W. N. and C. R. HARRINGTON

- 1973 Upper Pleistocene Radiocarbon-Dated Artifacts from the Northern Yukon. In Science, Vol. 179, No. 4071, pp. 335-340.

IRVING, W. N. and C. R. HARRINGTON

This article deals with Paleo-Indian sites in the Yukon area of Alaska. Much of the information in this article is relevant to a better understanding of Paleo-Indian lifeways of other parts of North America.

JACKSON, MISSISSIPPI CHAMBER OF COMMERCE

- 1929 Industrial Survey of Jackson, Mississippi and Hinds and Rankin Counties. Conducted by Robert and Company, Architects and Engineers, Atlanta, Georgia.

This book provides a general survey oriented towards the industrial growth of Jackson, Mississippi as well as Hinds and Rankin Counties. No events specific to the project area are mentioned, although the role of the Pearl River as a transportation artery is briefly mentioned.

JENNINGS, JESSIE D.

- 1940 Report of Archeological Survey of the Natchez Trace Parkway. Unpublished manuscript on file at the Natchez Trace Parkway Headquarters. Tupelo.

This report discusses the progress of the first six months of the Natchez Trace Survey. A general overview of the archeology of the Trace is presented and artifacts collected during this reconnaissance are depicted in photographs. Tables and charts are included. Specific sites recorded during the survey are not mentioned.

- 1944 The Archeological Survey of the Natchez Trace. In American Antiquity, Vol. 9, No. 4, pp. 408-414.

This article presents a very general overview of the archeology of the Natchez Trace as learned from the Natchez Trace survey conducted by Jennings. Specific sites are not mentioned. Illustrated.

- 1946 Archeological Survey - Natchez Trace Parkway (Revised). Memorandum on file at the Natchez Trace Parkway. Tupelo.

This article presents Jennings' view as to the origins of the successive prehistoric Indian civilizations found along the Natchez Trace. Specific sites are not mentioned. Illustrated.

LAURO, JAMES T.

- 1980 Pearl River Flood Control Project, City of Jackson; A Preliminary Archaeological Reconnaissance. Letter report on file at the Mississippi Department of Archives and History. Jackson.

This letter report documents the results of an archeological reconnaissance of four rights-of-way along the Pearl River in the Jackson city limits. Although two "small areas of cultural debris" were noted, no sites were recorded during this survey which included no testing. No map is included.

LAURO, JAMES T.

- 1981 Cultural Resource Survey of an Approximately 100 Acre Tract, Leake County, Mississippi. Performed for the Pearl River Basin Development District. Letter report on file at the Mississippi Department of Archives and History. Jackson.

This letter documents the findings of a cultural resources survey of approximately 100 acres in Leake County. Reconnaissance, consisting of surface inspection and shovel testing, revealed no cultural resources. A map of the survey area is included.

LEWIS, T.M.N. and MADELINE KNEBERG LEWIS

- 1961 Eva: An Archaic Site. The University of Tennessee Press. Knoxville.

This report presents a discussion of the archeology of the Eva Site in Tennessee. Although this site is not in the project area, it has produced subsistence data important to a better understanding of the Archaic era in general.

LOWE, E. N.

- 1915 Mississippi: Its Geology, Geography, Soils and Mineral Resources. Mississippi Geological Survey Bulletin 12.

LOWERY, CHARLES D.

- 1968 The Great Migration to the Mississippi Territory, 1798-1819. In Journal of Mississippi History, Vol. 30, No. 3, pp. 173-192.

This article deals with the influx of people who entered the Mississippi Territory during the years 1798, when the area first opened for settlement, and 1819. The major focus of the article centers on the reasons behind the migration and its effect on the country. Other topics discussed include areas settled, origin of settlers, kinds of settlers (agricultural, herdsmen, etc.) and populations of various areas. No settlements along the Pearl River are mentioned.

LOWERY, G. H.

- 1974 The Mammals of Louisiana and its Adjacent Waters. Louisiana State University Press. Baton Rouge.

LOWRY, ROBERT and WILLIAM H. MCCARDLE

- 1891 A History of Mississippi From The Discovery of the Great River by Hernando DeSoto, including the Earliest Settlement Made By The French, Under Iberville, To The Death of Jefferson Davis. Jackson.

The emphasis of this book is a chronological narrative of the state's history from early explorations to 1890. Nearly a third of the book is devoted to sketches of individual counties. Biographical sketches are also presented and all names are indexed. Chapters on Indians, education, United States Senators, etc., are also included.

MCCAIN, WILLIAM DAVID

1953 The Story of Jackson: A History of the Capital of Mississippi, 1921-1951. 2 Volumes. The Hyer Company. Jackson.

This volume presents an overview of the history of Jackson, Mississippi from 1821-1951. Except for mention of the Pearl River, the project area is not included.

MCGAHEY, SAMUEL O.

1975 Prehistoric Mississippi. In Historic Preservation in Mississippi: A Comprehensive Plan. Robert J. Bailey and Priscilla M. Lowrey, eds., pp. 11-23. Mississippi Department of Archives and History. Jackson.

This article presents a general overview of the archeology of Mississippi. No sites in the project area are discussed. Maps and illustrations are provided.

MCWILLIAMS, RICHEBOURG GAILLARD (translator)

1953 Fluer de Lys and Calumet: Being the Penicaut Narrative of French Adventure in Louisiana. Louisiana State University Press. Baton Rouge.

This book is the narrative of Andre Penicaut who served as carpenter to Iberville during his exploration of Mississippi in the seventeenth and eighteenth centuries. Iberville's expedition stopped briefly at the Pearl River and observed pearls from this river. They referred to it as the "Riviere-aux-Pierres." This is the only mention of the Pearl River in this book.

MANGUM, PAUL L., JR.

1963 An Archaeological Survey of the State of Mississippi East of the Lower Mississippi River Valley. B.A. thesis, Harvard College. Cambridge. On file at the Mississippi Department of Archives and History. Jackson.

This manuscript provides a general overview of the archeology of selected portions of Mississippi. Work by early archeologists is mentioned. The Wills Site (22Ha512) is depicted on a map which illustrates what Mangum refers to as the Hinds-Madison Locality of the Big Black Region. No other sites in the corridor are mentioned.

MARSHALL, RICHARD A.

1973 The Prehistory of Mississippi. In A History of Mississippi, edited by Richard Aubrey McLemore, Vol. 1, pp. 24-68. University and College Press of Mississippi. Hattiesburg.

This article presents a very general overview of Mississippi archeology. Theories offered by other archeologists are offered and a brief mention of previous investigations is made. The major archeological eras (Paleo-Indian, Archaic, etc.) are discussed in detail. This article is not illustrated.

MARTIN, ALEXANDER C., HERBERT S. ZIM and ARNOLD L. NELSON

- 1961 American Wildlife and Plants, A Guide to Wildlife Food Habits: The Use of Trees, Shrubs, Weeds and Herbs by Birds and Mammals of the United States. Dover Publications. New York.

MARTIN, PAUL S. and FRED PLOG

- 1973 The Archaeology of Arizona: A Study of the Southwest Region. Doubleday/Natural History Press. Garden City, New York.

This book provides a detailed overview of the archeology of Arizona. Although it does not deal with the project area, the discussion of man's migration into the New World is applicable to all of North America.

MILLS, GWEN ANN

- 1966 A Social History of Jackson, Mississippi. University, Mississippi.

This book provides an overview of the social history of Jackson, Mississippi. It does not include the project area.

MISSISSIPPI HISTORICAL SOCIETY

- n.d.a Jackson, Mississippi - 1945. Publications of the Mississippi Historical Society, Vol. 9, pp. 173-178.

This volume provides a general history of Jackson prior to 1945. Except for mention of the Pearl River, it does not include the project area.

- n.d.b Leake County History, 1865-1875. Publications of the Mississippi Historical Society, Vol. 11, pp. 271-294.

This volume provides a general history of Leake County from 1865-1875. It does not include the project area.

- n.d.c Scott County History. Publication of the Mississippi Historical Society, Vol. 13, pp. 99-221.

This volume provides a general history of Scott County. It does not include the project area.

MISSISSIPPI STATE HIGHWAY DEPARTMENT

- 1978 Survey of Cultural Resources Along Proposed Highway 25 Between Highway 471 and Highway 483 at Ludlow: Alternate A, June, 1974. Letter report on file at the Mississippi Department of Archives and History. Jackson.

This letter report documents the findings of a cultural resources survey of a 300 foot right-of-way in Scott County. No sites were recorded during this survey. However, it is not mentioned if testing was conducted. A map of the survey area is included.

MONROE, W. H.
1954 Geology of the Jackson Area, Mississippi. U.S. Geological Survey Bulletin 986.

MOORE, JOHN HEBRON
1979 Railroads of Antebellum Mississippi. In Journal of Mississippi History, Vol. 41, No. 1, pp. 53-71.

This article provides a detailed overview of the railroad system which developed in Antebellum Mississippi. Reasons for the rapid popularity and success of the railroad during this time are explored and brief histories of major lines are discussed. Major railroads relevant to the Pearl River Basin include the Vicksburg and Jackson, the Mississippi and Alabama, the Canton and Jackson, the Southern Railroad Company and the New Orleans, Jackson and Great Northern.

MOORE, W. H.
1965 Hinds County: Geology and Mineral Resources. Mississippi Geological Survey Bulletin 105.

This reference provides a general overview to the geology and mineral resources of Hinds County. Illustrated.

MORSE, DAN F.
1973 Nodena-An Account of 75 Years of Archeological Investigation in Southeast Mississippi County, Arkansas. Arkansas Archeological Research Series, No. 4.

This report provides a discussion concerning the Dalton Complex which emerged in many areas of the Southeast towards the end of the Paleo-Indian era. Although no mention is made of sites in the project area, much of this report is relevant to a better understanding of the archeology of the Southeast.

MOSENFELDER, CLARA M.
1975 The Mississippian Settlement System in the Lower Yazoo Basin: An Analysis of the Impact on the Natural and Social Environments on Site Location. Manuscript on file, Museum of Anthropology, University of Michigan. Ann Arbor.

This volume deals with the Mississippian period as it is known in the Lower Yazoo Basin. Although this report does not deal with sites in the project area, it does provide valuable information relevant to the present study.

MULLER, JON D.
1978 The Southeast. In Ancient Native Americans, Jesse D. Jennings, editor, pp. 281-325, W. H. Freeman and Company. San Francisco.

This article consists of a general discussion of the development of Paleo-Indian culture in the Southeast. Although it does not deal with specific sites in the project area, it does provide valuable data which are relevant to a better understanding of the archeology of the Pearl River Basin and the project area.

MURRAY, G. E.

- 1960 Geologic Framework of Gulf Coastal Province of United States.
American Association of Petroleum Geologists. Tulsa.

NASH, CHARLES H.

- 1968 Residence Mounds: An Intermediate Middle-Mississippian Settlement Pattern. Memphis State University Anthropological Research Center, Occasional Papers, No. 2. Memphis.

This report discusses and describes so-called "residence mounds" and their role within the Middle-Mississippian settlement pattern. Although no sites in the project area are included, this report provides valuable information relevant to the present study.

NEITZEL, ROBERT S.

- 1966 Archeological and Historical Resources of the Pearl River Basin, Mississippi and Louisiana. Unpublished report on file at the Office of Archeology and Historic Preservation, National Park Service. Atlanta.

This report presents a very general overview of the prehistory and history of the Pearl River Basin. The Wills Site (22Hi512) is briefly mentioned. No maps are included.

NEITZEL, ROBERT S. and STEPHEN PERRY

- 1978 A Prehistory of Central and North Louisiana. In A Cultural Resource Survey and Evaluation of the Opelousas to Shreveport Portion of the Proposed North-South Expressway: Phases I and II. Report prepared for Howard, Needles, Tammen and Bergendoff. Baton Rouge by the Research Institute, Northeast Louisiana University. Monroe.

This chapter presents a general overview of the archeology of Louisiana. Although it does not deal with the project area, it provides valuable information relevant to the present study.

NEUMAN, ROBERT W.

- 1977 An Archeological Assessment of Coastal Louisiana. Melanges, No. 11, pp.6-18. Museum of Geoscience, Louisiana State University. Baton Rouge.

This booklet provides a general overview of the archeology of coastal Louisiana. Although the focus of this volume is outside of the project area, a chronology relevant to a better understanding of the Southeast is included.

PARKINS, A.E.

- 1939 The South: Its Economic Geographic Development. John Wiley and Sons, New York.

Classic geographical work on the South; now outdated, but still of great historical value.

PARMALEE, PAUL W. and WALTER E. KLIPPEL

- 1974 Freshwater Mussels as a Prehistoric Food Resource. In American Antiquity, Vol. 39, No. 3, pp. 421-434.

PEARL RIVER COMPREHENSIVE BASIN STUDY

- 1970 Appendix K. Archaeological and Historical Resources of the Pearl River Basin, Mississippi and Louisiana, Vol. 7. National Park Service, Southeast Region. Richmond, Virginia.

This report documents a very general overview of the archeological and historical resources of the Pearl River Basin which was conducted by Neitzel for the National Park Service.

PHILLIPS, PHILIP

- 1970 Archeological Survey in the Lower Yazoo Basin, Mississippi, 1949-1955. Papers of the Peabody Museum of Archeology and Ethnology, Vol. 60. Pts. 1 and 2. Harvard University. Cambridge.

This volume discusses in detail the archeology of the Lower Mississippi Valley. The chronology presented in this report is relevant to a better understanding of the archeology of the Southeast.

PHILLIPS, ULRICH B.

- 1906 The Origin and Growth of the Southern Black Belts. American Historical Review, Vol. II: 799-816.

Minor article dealing with southern agricultural history by one of the foremost historians of his day.

POWELL, W.F.

- n.d. Jackson's Early History and 28 Years of Municipal Progress. The Tucker Printing Company. Jackson.

This book presents a general overview of the early history of Jackson, Mississippi. Topics such as early roads, river transport (keel-boats and steamboats, etc.), the Civil War, Reconstruction and development of Jackson as a major southern city are discussed. Information presented in this book is not referenced. Photographs illustrate the volume.

PRIDY, R. R.

- 1960 Madison County Geology. Mississippi Geological Survey Bulletin 88.

RANDS, ROBERT L.

- 1958 Archeological Survey of the Pearl River Reservoir Area, Mississippi: Preliminary Report. Unpublished Manuscript on file at the Mississippi Department of Archives and History. Jackson.

This report documents the results of an archeological survey of the proposed Pearl River Reservoir (now Ross Barnett) in 1958 by Robert L. Rands. The survey area included portions of Hinds, Madison, Rankin, Scott and Leake Counties. Two sites in the project area were recorded during this survey. In all, 24 sites are

RANDS, ROBERT L.

mentioned in the report, some of which were recorded prior to Rands' survey. Rands does not mention which sites he located and which ones were previously recorded. A map is included.

- 1959 The Wills Site: Poverty Point-Woodland Remains on the Pearl River, Mississippi. In Southeastern Archaeological Conference Newsletter, Vol. 6, pp. 15-18.

This report documents the results of the excavation of portions of the Wills Site (22H1512) in Hinds County, Mississippi which were conducted during the fall of 1958. Five test pits produced Poverty Point objects and pottery. In general, the artifacts suggested a trend of Poverty Point objects over pottery, however, one test pit yielded an amorphous Poverty Point object and pottery, suggesting to the excavators a partial contemporaneity of these two classes of cultural materials at the site. The Wills Site is believed to have been occupied over a considerable time span. The unusual abundance of fiber-tempered pottery associated with the Bayou La Batre-like ceramics found at the site suggests that cultural affiliations may have been especially strong to the east, rather than the closely adjacent Mississippi valley. No maps or charts are presented.

RANKIN COUNTY HISTORICAL SOCIETY

- 1980 Rankin County, Mississippi, Cemetery Records, 1824-1980. Rankin County Historical Society. Brandon, Mississippi.

This volume presents a listing of cemetery records for Rankin County. None of the cemeteries in this source is in the project area.

RILEY, FRANKLIN L.

- 1902 Extinct Towns and Villages of Mississippi. Publications of the Mississippi Historical Society, Vol. 5, pp. 311-383.

This book deals with towns and villages in Mississippi which have become extinct. The towns are described and reasons for their demise given. A map is included. None of these towns is in the project area.

ROBERTSON, JOHN ALLEN

- 1961 Transportation in Mississippi Before 1860. M.A. Thesis, Mississippi Southern College. Hattiesburg.

This thesis deals with the various kinds of transportation in the state of Mississippi from 1798 to 1860. It is divided into four chapters. Chapter I discusses transportation during the territorial period (1798-1817). Early trails and roads as well as the various kinds of river vessels used during this period are mentioned. Chapter II deals with steamboats during the period 1811-1860. Steamboats which navigated the Pearl River mentioned in this thesis were the Choctaw, Express, Denmark, Grand Gulf and Ranger. Overland Transportation during the period 1817-1860 is

ROBERTSON, JOHN ALLEN

discussed in Chapter III and Mississippi railroad construction and legislation during the period 1831-1860 is the subject of Chapter IV. Maps depicting Mississippi during the years 1819, 1822, and 1860 are included.

ROBERTSON, KENNETH LARRY

n.d. Historical Background of the Proposed LeFleur's Bluff Park and Surrounding Environs. Unpublished manuscript on file at the Mississippi Department of Archives and History. Jackson.

This paper presents a brief history of Jackson, Mississippi and the area known as Le Fleur's Bluff. Some early explorers and settlers are mentioned and some of the more general events in Mississippi history are discussed. The information in this manuscript is not documented.

ROMERO, SIDNEY J.

1968 The Pearl In The Rivers and Bayous of Louisiana, edited by Edwin Adams Davis. Louisiana Education Research Association. Baton Rouge.

This article provides a very general history and description of the Pearl River. Some of the early settlers are mentioned, major towns are discussed and the commerce of the area is noted. A map of the river is included.

ROSS, LIEUTENANT

1772 Course of the River Mississippi from the Balise to Fort Chartres Taken on an Expedition to the Illinois, in the Latter End of th Year 1765 by Lieutenant Ross of the 54th Regiment: Improved from the Surveys of that River Made by the French. Printed for Robert Saver, North 53 in Fleet Street, Published as the Act Directs. 1 June 1772. Copy on file at Northeast Louisiana University. Monroe, Louisiana.

This map was originally drawn in 1765 during an expedition down the Mississippi River by Lieutenant Ross. The Pearl River is also depicted on this map and the only Indian group mentioned is the Chactaw (Choctaw) or Flathead Indians living along its upper reaches.

ROULETT, REGIS DU

1732 Carte Du Cours De La Riviere Aux Perles. Drafted by Roulet in 1732, and redrawn in 1737 by Philip Bauche of the Academy of Science. Original at Hydrographic Archives. Paris (4040 c, No. 43). On file at the Mississippi Department of Archives and History. Jackson.

This map was prepared as a result of Roulet's trip down the Pearl River in 1732. No villages are noted in the project area.

ROWLAND, DUNBAR

- 1907 Mississippi, Comprising Sketches of Counties, Towns, Events, Institutions, and Persons, Arranged in Cyclopedic Form (Cyclopedia of Mississippi) (4 volumes). Atlanta.

This comprehensive history of Mississippi was compiled by Dunbar Rowland, the director of the Mississippi Department of Archives and History, from original sources and documents in the Archives and represents the first thorough and professional usage of these original materials to produce a history. It covers the period from earliest exploration to the time of writing. Volumes I and II contain historical data and are arranged in cyclopedic form. Volume III is a volume of contemporary biography containing approximately 900 biographies and over 500 photographs of individuals important to Mississippi around the turn of the century. Volume IV is a supplementary volume containing personal sketches of representative Mississippians for whom special steel engravings were prepared, approximately 125 in number.

- 1922 History of Hinds County, Mississippi, 1821-1922. . Thesis. Mississippi State University. Starkville.

This book provides a general overview of Mississippi history from 1821-1922. No events in the project area are discussed. Jackson and the Pearl River are briefly mentioned.

- 1925 History of Mississippi, The Heart of the South. The S.J. Clarke Publishing Company. Chicago.

This book provides a very general overview of Mississippi history. No references to the project area are mentioned. Jackson and the Pearl River are briefly discussed.

ROWLAND, DUNBAR and A.G. SANDERS

- 1927 Mississippi Provincial Archives 1729-1740, French Dominion, Vol. 1. Mississippi Department of Archives and History. Jackson.

This volume presents the translations of French letters, documents and journals. The journal of Regis du Roulet, an early explorer who traversed the Pearl River in 1732 is provided. His accounts of Indian villages as well as a physical description of the Pearl River are provided.

RUFF, HAZEL

- 1941 The History of Hinds County, Mississippi, Before 1860. Duke University. Chapel Hill, North Carolina.

This book provides a very general overview of the history of Mississippi prior to 1860. No events concerning the project area are mentioned.

SALTER, JOHN R.

- 1979 Jackson, Mississippi: An American Chronicle of Struggle and Schism. Exposition Press. N.Y.

SALTER, JOHN R.

This book presents a general overview of the history of Jackson, Mississippi. The project area is not included.

SHELFORD, VICTOR E.

1963 The Ecology of North America. University of Illinois Press. Urbana.

SILBERNAGEL, CHARLES J.

1966 An Economic History of Rankin County, Mississippi. M.A. Thesis, Mississippi College. Clinton.

This thesis presents a general discussion of the economic history of Rankin County. Although the study area is not mentioned specifically, the role of the Pearl River as a transportation artery is mentioned.

SKATES, JOHN RAY

1979 Mississippi A History. W.W. Norton and Co., Inc. New York.

This book is a general overview of Mississippi history. Although it does not deal specifically with the project area, it provides general information necessary in the understanding of the culture sequence of the study area.

SNYDOR, CHARLES and CLAUDE BENNETT

1939 Mississippi History. Rand McNally and Company. Richmond.

This book provides a very general overview of Mississippi history. No events relating to the project area are mentioned, although the Pearl River and Jackson are briefly discussed.

SQUIER, E. G. and E. H. DAVIS

1848 Ancient Monuments of the Mississippi Valley. Smithsonian Contributions to Knowledge, Vol. 1. Washington, D.C.

This volume documents the work conducted by Squier and Davis during their work in the Mississippi Valley. None of the sites recorded by them is in the project area.

STONE, JAMES H.

1975 Historic Mississippi. In Historic Preservation in Mississippi: A Comprehensive Plan Robert J. Bailey and Priscilla M. Lowrey, eds., pp. 23-39. Mississippi Department of Archives and History. Jackson.

This article provides a general overview of the history of Mississippi. Early maps and photographs of selected buildings of historical significance are presented.

SWANTON, JOHN R.

1946 The Indians of the Southeastern United States. Smithsonian Institution, Bureau of American Ethnology, Bulletin 137. Government Printing Office, Washington, D.C. and Greenwood Press, New York.

THORNE, ROBERT M.

1977 Cultural Resources Survey, Item 1, Upper Yazoo Projects, Yazoo River, Mississippi, Between SRM 75.6 and 107.8. Department of Sociology and Anthropology, University of Mississippi. Oxford.

1980 Cultural Resources Survey, Scott, Mississippi Substation, Leake-Ludlow Extended to Scott Transmission Line and Ludlow-Sandhill Tap to Scott Transmission Line, Scott and Leake Counties, Mississippi. Letter report on file at the Mississippi Department of Archives and History. Jackson.

This letter report documents the findings of a cultural resources survey of 16.86 acres in Leake and Scott Counties. Reconnaissance was carried out through surface inspection and limited testing. No sites were recorded. A map is included.

1981 Cultural Resources Survey of Three Borrow Pits, Leake County, Mississippi. Letter report on file at the Mississippi Department of Archives and History. Jackson.

This letter report documents the findings of a cultural resources survey of three borrow pits in Leake County. The reconnaissance was carried out through shovel testing and surface inspection. No sites were recorded. A map is included.

TOTH, ALAN

1977 Early Marksville Phases in the Lower Mississippi Valley: A Study of Culture Contact Dynamics. Ph.D. dissertation, Harvard University. Cambridge.

This dissertation provides a very detailed overview of the development of the Marksville culture in the Lower Mississippi Valley. Although this study does not include the project area, Toth's discussion of Marksville and related cultures is relevant to this study.

TURNER, GEORGE EDGAR

1953 Victory Rode the Rails: The Strategic Place of the Railroad in The Civil War. The Bobbs-Merrill Company, Inc. Indianapolis and New York.

TURNER, GEORGE EDGAR

This book presents a very general discussion of the importance of railroads in the Civil War. The importance of Jackson as a railroad center is discussed.

U.S. ARMY CORPS OF ENGINEERS

1975 Final Environmental Impact Statement; Flood Control Mississippi River and Tributaries: Yazoo River Basin, Mississippi. U.S. Army Engineer District, Vicksburg, Mississippi.

U.S.D.A.-S.C.S.

1971 General Soil Map, Linke County, Mississippi.

U.S.D.A.-S.C.S.

1971 General Soil Map, Madison County, Mississippi.

General Soil Map, Scott County, Mississippi.

1972 General Soil Map, Rankin County, Mississippi.

1979 Soil Survey of Hinds County, Mississippi. Prepared by the U.S. Department of Agriculture, Soil Conservation Service in cooperation with Mississippi Agricultural and Forestry Experiment Station.

VAN DOREN, MARK (Editor)

1955 The Travels of William Bartram. Dover Publications. New York.

This book presents the findings of William Bartram a botanist who travelled throughout the Southeast recording and reporting native flora of the area. During his travels, Mr. Bartram stayed on Pearl Island just to the south of the mouth of the Pearl River. A detailed description of this island is presented. He also mentions a brief visit to a plantation on the Pearl River.

VANCE, ROBERT B.

1935 Human Geography of the South. Russell and Russell, New York.

Outstanding cultural geography of the South. Although now outdated, it is still extremely useful to the historian, historical geographer and cultural geographer.

VEXLER, ROBERT I. and WILLIAM F. SWINDLER

1978 Chronology and Documentary Handbook of the State of Mississippi. Oceana Publications, Inc. Dobbs Ferry, New York.

This book provides information concerning the history of Mississippi presented in cyclopedic form. Although it does not deal with the project area specifically, it provides information relevant to the present study.

WALTHALL, JOHN A.

1980 Prehistoric Indians of the Southeast: Archaeology of Alabama and the Middle South. The University of Alabama Press.

This book provides a general overview of the archeology of the Southeast. Although this volume does not deal with any of the sites in the project area, it does provide valuable information necessary to a better understanding of the Southeast in general.

WEBB, CLARENCE H.

1968 The Extent and Content of Poverty Point Culture. In American Antiquity, Vol. 33, No. 3, pp. 297-321.

WEBB, CLARENCE H.

This article provides a detailed discussion of the Poverty Point culture with emphasis on the influence of Mesoamerican elements on the development and spread of this cultural system. Various Poverty Point sites and their diagnostic artifacts are discussed. Maps and illustrations are provided.

- 1970 Settlement Patterns in the Poverty Point Complex. Southeastern Archeology Conference Bulletin No. 12, pp. 3-12.

This article discusses the various factors which have played an important part in the settlement pattern of Poverty Point sites. Topics such as site locations, size of sites, arrangement of occupations, subsistence, trade and social organization are discussed. The Wills Site (22H1512) is mentioned.

- 1977 The Poverty Point Culture. Geoscience and Man, Vol. 17, School of Geoscience, Louisiana State University, Baton Rouge.

This report discusses the Poverty Point culture in terms of settlement patterns, distribution systems and societal organization. Descriptions of representative sites and artifacts as well as intersite comparisons are presented. The Wills Site (22H1512) is mentioned. Maps and illustrations are provided.

WILLEY, GORDON R. and PHILLIP PHILLIPS

- 1958 Method and Theory in American Archeology. The University of Chicago Press. Chicago.

This book is oriented towards a discussion of method and theory in American archeology. Although it does not deal with the project area, it does provide valuable information relevant to this project.

WILLEY, GORDON R. and JEREMY A. SABLOFF

- 1974 A History of American Archaeology. W.H. Freeman and Company. San Francisco.

This book provides a detailed overview of the history of American archeology. Changes in archeological practices from the earliest days to the present are noted and prominent men in the field are mentioned. This is a very general source and does not include sites in the project area.

WILLIAMS, J. RAYMOND

- 1974 The Baytown Phases In The Cairo Lowland of Southeast Missouri. In Missouri Archaeology, Vol. 36, pp. 1-109.

This article discusses elements of the Baytown culture which have been found in Missouri sites. Although these sites are outside the project area, they have produced information relevant to the present study.

WILLIAMS, STEPHEN

- 1963 The Eastern United States. In William G. Haag, ed., Early Indian Farmers and Villages and Communities, National Survey of Historic Sites and Buildings, National Park Service, U. S. Department of the Interior, pp. 267-325.

This article discusses the agricultural practices of prehistoric Southeastern groups. Although it does not deal with any sites in the project area, it provides information useful to the present study.

WILLIAMS, STEPHEN AND J. STOLTMAN

- 1965 An Outline of the Southeastern United States Prehistory With Particular Emphasis on the Paleo-Indian period. In The Quaternary of the United States, ed. by H.E. Wright, Jr., and D.G. Frey, pp. 669-683.

This article presents an overview of the prehistory of the Southeast. Although it does not deal with sites in the project area, it provides information useful to this study.

WORK PROJECTS ADMINISTRATION

- 1936- Hinds County: Historical Research Material (Agriculture-Wars).
1942a Volumes 291-299. Unpublished manuscript on file at the Mississippi Department of Archives and History. Jackson.
- 1936- Leake County: Historical Research Material (Agriculture-Wars).
1942b Volume 314. Unpublished manuscript on file at the Mississippi Department of Archives and History. Jackson.
- 1936- Madison County: Historical Research Material (Agriculture-Wars).
1942c Volumes 345-348. Unpublished manuscript on file at the Mississippi Department of Archives and History. Jackson.
- 1936- Rankin County: Historic Research Material (Agriculture-Wars).
1942d Volumes 392-394. Unpublished manuscript on file at the Mississippi Department of Archives and History. Jackson.
- 1936- Scott County: Historical Research Material (Agriculture-Wars).
1942e Volume 421. Unpublished manuscript on file at the Mississippi Department of Archives and History. Jackson.

During the 1930's and 1940's, research concerning the various counties of Mississippi was conducted by the Works Project Administration. Virtually all of this material exists in handwritten or typewritten manuscripts in folders or boxes at the Mississippi Department of Archives and History. Much of it is unorganized and unaccompanied by maps or illustrations.

- 1940a Early Indian and Spanish Trails. Unpublished manuscript on file at the Mississippi Department of Archives and History. Jackson.

WORK PROJECTS ADMINISTRATION

This report provides a very general description of major Indian and Spanish trails in Mississippi. Trails relevant to the project area, which are discussed in this volume, are the Natchez Trace and Jackson's Military Road. A map is provided.

- 1940b Indian Mounds and Sites in Mississippi, Vol. 1. Unpublished manuscript on file at the Mississippi Department of Archives and History. Jackson.

This volume is a collection of site forms for various counties in Mississippi. Although Hinds County is represented, no sites in the project area are included.

- 1940c Indian Mounds and Sites in Mississippi, Vol. 2. Unpublished manuscript on file at the Mississippi Department of Archives and History. Jackson.

This volume is a collection of site forms for various counties in Mississippi. Although Madison, Rankin and Scott Counties are represented, no sites in the project area are included.

- 1940d Outstanding Archeological and Early Historical Sites in Mississippi. Unpublished manuscript on file at the Mississippi Department of Archives and History. Jackson.

This volume presents brief discussions of major archeological and historical sites in Mississippi. No sites in the project area are included.

WORMINGTON, H. M.

- 1957 Ancient Man in North America. Denver Museum of Natural History, Popular Series No. 4. (Seventh Edition). Denver.

This book discusses major archeological sites in North America. Although no sites in the project area are included, many of the articles in this book are useful for a better understanding of the prehistory of North America in general.

APPENDIX A

RECORDED CULTURAL RESOURCES
WITHIN THE DRY IMPOUNDMENT AREA

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APPENDIX A

RECORDED CULTURAL RESOURCES WITHIN THE DRY IMPOUNDMENT AREA

LEAKE COUNTY

Indian Mound A

This site is represented by a circle labelled "Indian Mound" in the southeast quarter of the southeast quarter of the northeast quarter of Section 29, T10N, R7E on the U.S.G.S. 1961 Carthage 15' topographic quadrangle. This site is not recorded at the Mississippi Department of Archives and History and was not visited during the present study.

There is no evidence that this site has ever been visited by professional archeologists. However, because it is described on the quad as an Indian Mound, it must be considered potentially eligible for inclusion on the National Register of Historic Places.

Indian Mound B

This site is represented by a circle labelled "Indian Mound" in the northwest quarter of the southwest quarter of the southwest quarter of Section 29, T10N, R7E on the U.S.G.S. 1961 Carthage 15' topographic quadrangle. This site is not recorded at the Mississippi Department of Archives and History and was not visited during the present study.

There is no evidence that this site has ever been visited by professional archeologists. However, because it is described on the quadrangle as an Indian Mound, it must be considered potentially eligible for inclusion on the National Register of Historic Places.

Indian Mound C

This site is represented by a circle labelled "Indian Mound" in the southwest quarter of the southwest quarter of the southeast quarter of Section 32, T10N, R6E on the U.S.G.S. 1961 Carthage 15' topographic quadrangle. This site is not recorded at the Mississippi Department of Archives and History and was not visited during the present study.

There is no evidence that this site has ever been visited by professional archeologists. However, because it is described on the quadrangle as an Indian Mound, it must be considered potentially eligible for inclusion on the National Register of Historic Places.

MADISON COUNTY

22Md509 (Gibson Brothers Mound)

According to Mississippi Department of Archives and History records, this site, located in the northwest quarter of section 25, T9N, R4E on the U.S.G.S. 1960 Sharon 15' quad, was recorded as Md-9 during the Natchez Trace Survey between 1939 and 1947. When first recorded, it consisted of a round 60 x 74 x 4 feet in size, surrounded by a midden, and under cultivation. Artifacts taken from this site include sherds, points, shells, chips, bones, scrapers, a lead bullet, a rifle guard, and a plow share. Sherds and points were described as abundant. It was not visited during the present reconnaissance.

This site has apparently not been revisited by professional archeologists since it was initially recorded. This site needs to be visited before a final determination of eligibility can be made; until that time the site should be considered potentially eligible for inclusion on the National Register of Historic Places.

22Md511 (Choctaw Boundary Site)

According to Mississippi Department of Archives and History records, this site was recorded as Md-8 during the Pearl River Reservoir Survey in 1958. The site is also referred to as MMD-8. When first recorded (Rands 1958), it was described as a badly eroded mound approximately 125 x 80 x 8 feet. It is located in the northwest quarter of irregular Section 9, T9N, R5E on the U.S.G.S. 1960 Sharon 15' quad. No other information is given. It was not visited during the present reconnaissance.

This site has apparently not been revisited by professional archeologists since it was initially recorded. This site needs to be visited before a final determination of eligibility can be made; until that time, it should be considered potentially eligible for inclusion on the National Register of Historic Places.

22Md513 (Choctaw Lake Site)

According to Mississippi Department of Archives and History records, this site, located in the southeast quarter of Section 29, T9N, R5E, was recorded as Md-10 during the Natchez Trace Survey between 1939 and 1947. When first recorded, it consisted of a midden area approximately five acres in size. Artifacts taken from the site include sherds, grinding stones, bones, tools, chips, and shell. Sherds and points were described as abundant. It was not visited during the present reconnaissance.

This site has apparently not been revisited by professional archeologists since it was initially recorded. This site needs to be visited before a final determination of eligibility can be made; until that time the site should be considered potentially eligible for inclusion on the National Register of Historic Places.

22Md514 (Goolsby Site)

According to Mississippi Department of Archives and History records, this site, located in the southern half of the northwest quarter of Section 8, T9N, R5E and south of the Natchez Trace, was recorded as Md-11 during the Natchez Trace Survey between 1939 and 1947. When first recorded, it consisted of a 10 acre midden containing Late Baytown/Indian Village components. Artifacts taken from this site include sherds, chips, and points. The frequency of material was described as abundant. It was not visited during the present reconnaissance.

This site has apparently not been revisited by professional archeologists since it was initially recorded. This site needs to be visited before a final determination of eligibility can be made; until that time the site should be considered potentially eligible for inclusion on the National Register of Historic Places.

22Md515 (Bransom Site)

According to Mississippi Department of Archives and History records, this site, located in the southeast quarter of Section 4, T9N, R5E, was recorded as Md-12 during the Natchez Trace Survey between 1939 and 1947. When first recorded, it was described as a mound or erosional remnant 200 x 10 feet in size. It was not visited during the present reconnaissance.

This site has apparently not been revisited by professional archeologists since it was initially recorded. This site needs to be visited before a final determination of eligibility can be made; until that time the site should be considered potentially eligible for inclusion on the National Register of Historic Places.

22Md516 (Macushla Site)

According to Mississippi Department of Archives and History records, this site, located in the southwest quarter of the southwest quarter of Section 20, T9N, R5E, was first recorded in 1946, during a National Park Service Basin Survey and assigned the number MMd-10. It was later recorded by Neitzel in 1966 as 22Md516. When first recorded, it was described as a village site in the Macushla Game Refuge. It was not visited during the present reconnaissance.

This site has apparently not been revisited by professional archeologists since it was initially recorded. This site needs to be visited before a final determination of eligibility can be made; until that time the site should be considered potentially eligible for inclusion on the National Register of Historic Places.

22Md565 (JWH #3 Site)

According to Mississippi Department of Archives and History records, this site is located in the southeast quarter of Section 35, T10N, R5E. No other information is given. It was not visited during the present reconnaissance.

This site has apparently not been revisited by professional archeologists since it was initially recorded. This site needs to be visited before a final determination of eligibility can be made; until that time the site should be considered potentially eligible for inclusion on the National Register of Historic Places.

RANKIN COUNTY

22Ra507 (Denson Site)

This site was recorded as Rk-8 (Ibid) during the Pearl River Reservoir Survey. It is located in the northwest quarter of Section 12, T8N, R4E. Additional numbers for this site are U of M 507, RK-8, and RA-8. According to Mississippi Department of Archives and History records, this site is located in the northwest quarter of Section 12, T8N, R4E. No other information is given. It was not visited during the present reconnaissance.

This site has apparently not been revisited by professional archeologists since it was initially recorded. This site needs to be visited before a final determination of eligibility can be made; until that time the site should be considered potentially eligible for inclusion on the National Register of Historic Places.

22Ra556

Physical Setting

The site (Figure A-1) is located on a rise, a possible eroded terrace remnant, in a cultivated soybean field at an elevation of approximately 305 feet above mean sea level (U.S.G.S. 1960 Sharon 15' topographic quadrangle). Soils consist of tan silt loams overlying clay. The area immediately north and west of the site is low-lying, flooded bottomland vegetated with hardwoods. Areas to the northeast above the 300 foot contour, are vegetated with pine and a few hardwoods. Areas to the east and south are plowed fields.

Survey Methodology and Observations

This site was recorded during the present reconnaissance. It consists of a sparse surface scatter of prehistoric sherds, one split gravel, and two pieces of sandstone. The site has been scattered by plowing and no artifact concentrations were observed. It measures 90 x 40 meters and oriented northwest-southeast. It is confined to the surface of the rise.

A series of eight shovel tests were excavated, revealing very shallow topsoil over clay. These were located on and beyond the rise on which surface cultural material was located (Figure A-1). No cultural remains were recovered from the tests and no evidence of buried cultural strata, or midden deposit, were observed in the test profiles or bottoms. A representative shovel test profile revealed: 0-8 centimeters of dark brown (10YR3/3) silty loam (plow zone) overlying dark yellowish brown (10YR4/4) clay loam to 65 centimeters below surface.

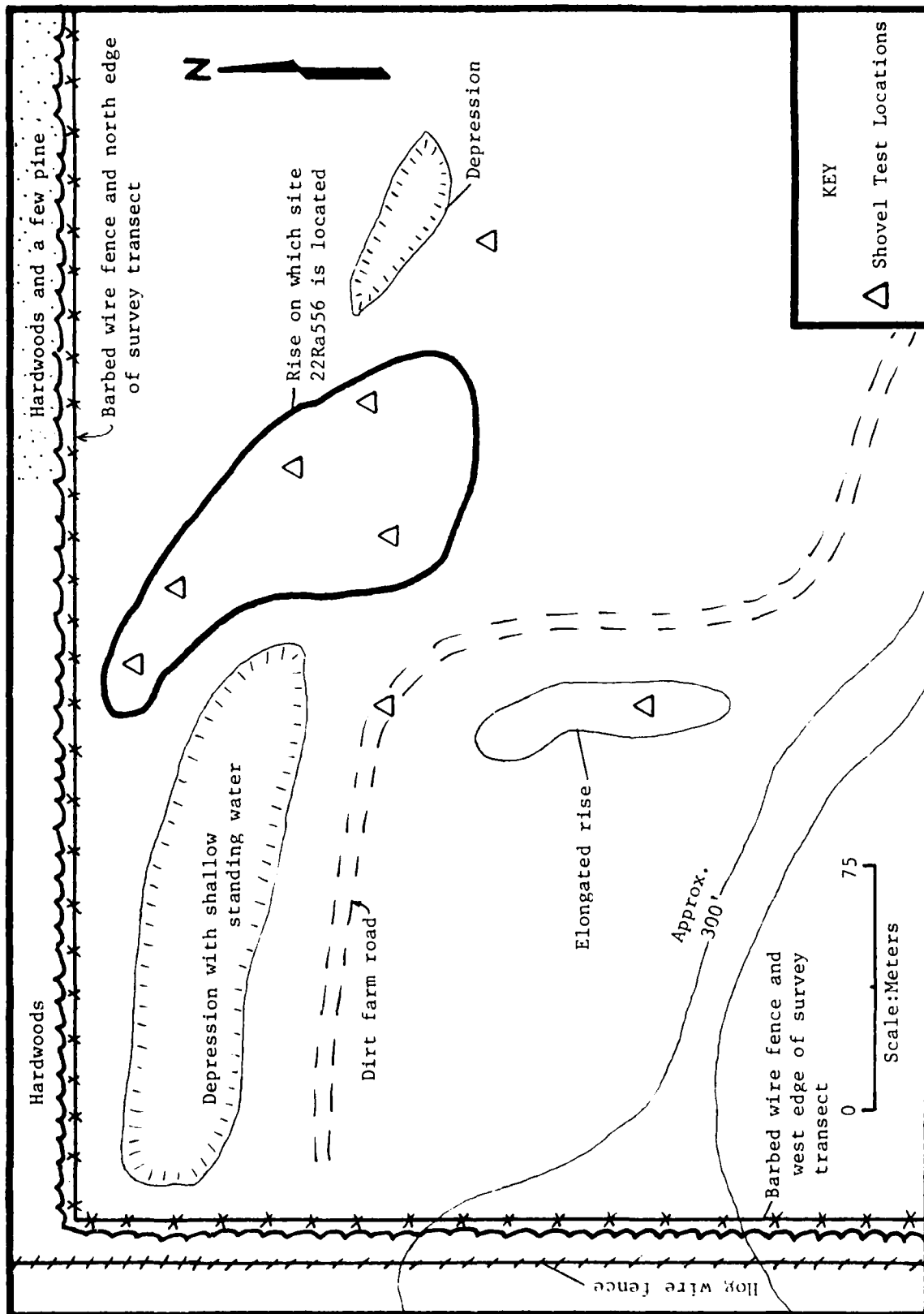


Figure A-1. Sketch map of site 22RA556.

Artifacts

A total of 18 grog-tempered body sherds was collected from the rise surface. One sherd has a single incised line one centimeter in length and two exhibit very light brushing. The remaining 16 are undecorated. They are very small, with a maximum diameter of five centimeters, and are very weathered. The exterior surfaces are yellowish brown (10YR5/8) and the interiors are dark gray to black. The split gravel, possibly split by plowing, and the sandstone pieces were not collected.

Discussion

This site was accessioned by Heartfield, Price and Greene, Inc., as number NLU-82-8. Number 22Ra556 was assigned by the Mississippi Department of Archives and History in a letter dated April 27, 1982 to Heartfield, Price and Greene, Inc.

On the basis of the recovered artifacts, the site can be dated to the Post-Archaic era. More accurate temporal placement is not possible given the undecorated, fragmentary nature of the recovered ceramics. Although no artifacts diagnostic of the Archaic era were located, it is very likely that the area was also utilized by these earlier cultures. The sparsity and nature of the artifacts suggest the site functioned only as a small, semi-permanent village. The low artifact density in the plowed field suggests it was never intensively occupied. It may have served as a base camp for seasonal exploitation of the Pearl River bottoms to the north and west and the uplands, rising 50 feet above the site, to the south and east.

Significance

The entire area in which the site is located has been plowed. Shovel testing failed to locate subsurface cultural remains or in situ features. The site has apparently been destroyed by plowing. Judging from the artifacts and information recovered, it is unlikely that further investigation will yield significant additional information regarding the prehistory of this section of the Pearl River Basin. The site is, therefore, considered not eligible for inclusion on the National Register of Historic Places.

NLU-82-9 (Tate House Site)

Physical Setting

The site is located on the end of an upland ridge extending into the floodplain of a large tributary to Fannegusha Creek at an elevation of 330 feet above mean sea level (U.S.G.S. 1960 Sharon 15' topographic quadrangle). Soils consist of 4-5 centimeters of fine silt loam overlying orangish clay loam. The structure is located in an International Paper Company pine forest and is surrounded by planted rows of pine trees.

Survey Methodology and Observations

This site was recorded during the present reconnaissance. It consists of a delapidated, wood frame house raised on cedar piers, 8 inches in diameter

and 10 inches tall). An east-west interior wall divides the house into two rooms of equal size. The gable roof is covered with wood shingles. It was constructed with round, wire nails. The absence of electric insulators or poles for wire suspension on the structure suggest it was not wired for electricity. The south side of the structure is overgrown with brush and vines.

Surface reconnaissance of the surrounding area revealed a circular depression, possibly a well, on the northeast corner of the structure. It measured about 2.5 meters in diameter and 1 meter in depth. Decayed planking, probably the remains of the well enclosure or bucket pulley attachment, was present on the depression surface. A shovel test was attempted in its center in search of historic refuse but was abandoned at approximately 20 centimeters below the surface as it filled with water. No cultural material was encountered.

Artifacts

Other material observed in the area included an east-west barbed and hog wire fence row along the north edge of the house, a 55-gallon barrel, clear and white glass fragments, none of which had diagnostic markings, oxidized cans, and a metal bed headboard. Four amber, one-pint bottles with "PUREX" embossed in two places on their shoulders were observed. Their bases were embossed , indicating manufacture by the Owens-Illinois Glass Company, at Okmulgee, Oklahoma, circa 1939 (Toulouse 1971:403). They were described in the field and left where they were located, about five meters north of the structure.

As the area about the house had been ditched for fire prevention reasons, presumably by International Paper Company, no shovel tests were dug. These ditches measured approximately 45 centimeters in depth and 50 centimeters wide. Rather, the entire length of the fire ditches was carefully inspected for subsurface cultural remains, both historic and prehistoric. None was located. Soil profiles revealed in the ditches include: 0-5 centimeters, brown (10YR4/3) silty clay loam; 5-45 centimeters, yellowish brown (10YR5/6) clay loam.

Discussion and Significance

The maker's mark on the Purex bottles suggests an initial occupation date during probably the late 1930's or early 1940's. The word "TATE" carved into a window sill on the southwest corner of the structure may be the name of the family who occupied the house. This site is not depicted on the 1960 Sharon 15' U.S.G.S. topographic quadrangle.

The structure is highly deteriorated, delapidated, and lacks significant architectural features. It is, therefore, considered not eligible for inclusion on the National Register of Historic Places.

NLU-82-10

Physical Setting

The site is located on an upland ridge at an elevation of 340-345 feet above mean sea level (U.S.G.S. 1960 Sharon 15' topographic quadrangle). Areas

to the north are International Paper Company pine forest. The site is surrounded by cultivated fields.

Survey Methodology and Observations

This site was recorded during the present reconnaissance. It consists of a modern, occupied trailer home. It has metal siding, a flat roof, and is raised on cinder blocks. It is poorly maintained and littered with recent refuse.

Significance

The structure was apparently moved to its present location or constructed at its present location after 1960, as it is not depicted on the U.S.G.S. Sharon 15' topographic quadrangle (1960 edition). Due to its recent age, it is not eligible for inclusion on the National Register of Historic Places.

NLU-82-11

Physical Setting

The site is located on an upland ridge at an elevation of 340-345 feet above mean sea level (U.S.G.S. 1960 Sharon 15' topographic quadrangle). Areas to the north are International Paper Company pine forest. The site is surrounded by cultivated fields.

Survey Methodology and Observations

This site was recorded during the present reconnaissance. It consists of a modern, occupied trailer home with metal siding and a flat metal roof. It is raised on metal supports. Hog and chicken pens are present on the west side of the trailer. It is in fair condition, and surrounded by a poorly maintained yard.

Significance

The structure was apparently moved to its present location or constructed at its present location after 1960, as it is not depicted on the U.S.G.S. 1960 Sharon 15' topographic quadrangle. It is too recent to be considered eligible for inclusion on the National Register of Historic Places.

NLU-82-12

Physical Setting

The site is located on a broad upland ridge surface at an elevation of approximately 345 feet above mean sea level (U.S.G.S. 1960 Sharon 15' topographic quadrangle). The area to the north is vegetated with pine forests of the International Paper Company. Areas south of the structure are plowed fields and pasture with a few isolated stands of pine.

Survey Methodology and Observations

This site was recorded during the present reconnaissance. It consists of a rectangular, wood frame structure raised on cinder blocks. The sides are faced with board and batten, and the front is faced with vertical planks. The gable roof is covered with corrugated tin. It has a single interior chimney and an open, but covered front porch. It is currently occupied.

Discussion and Significance

The house is not architecturally unique and lacks significant structural features. It was apparently moved to its present location or constructed at its present location since 1960, as it is not depicted on the 1960 Sharon 15' topographic quadrangle. It is too recent to be considered eligible for inclusion on the National Register of Historic Places.

NLU-82-13

Physical Setting

The site is located on a broad upland ridge surface at an elevation of approximately 345 feet above mean sea level (U.S.G.S. 1960 Sharon 15' topographic quadrangle). The area to the north is vegetated with pine forests of the International Paper Company. Areas south of the structure are plowed fields and pasture with a few isolated stands of pine.

Survey Methodology and Observations

This site was recorded during the present reconnaissance. It consists of a rectangular, wood frame structure raised on cinder blocks. It has a gable roof covered with tin, and the sides are covered with red asphalt shingles. A front porch and chimneys on both ends of the building were noted. The house is currently occupied and in fair condition. It (and the surrounding yard) is fairly well maintained.

Discussion and Significance

The structure was apparently moved to its present location or constructed at its present location since 1960, as it is not depicted on the U.S.G.S. 1960 Sharon 15' topographic quadrangle. It lacks significant architectural features and is too recent for inclusion on the National Register of Historic Places.

NLU-82-14

Physical Setting

The site is located on an upland ridge at an elevation of approximately 350 feet above mean sea level (U.S.G.S. 1960 Sharon 15' topographic quadrangle). The area east of the structure consists of fallow fields, some vegetated with tall grasses and weeds. Areas to the south and west consist of recently plowed fields vegetated with short, green grass.

Survey Methodology and Observations

This site was recorded during the present reconnaissance. It consists of a rectangular, wood frame structure raised on cement and wood blocks. The gable roof is covered with corrugated tin, and the siding consists of asbestos sheets. An overhang, supported by vertical wood posts, covers an un-enclosed front porch. An exterior brick chimney is present on the east end of the structure. The house is somewhat delapidated, poorly maintained, and appears to be unoccupied.

A modern trailer house, apparently unoccupied, is located about 20 meters south of the above structure. Southwest of the trailer is a partially collapsed wood frame shed with corrugated tin roofing. It is overgrown with vines.

Discussion and Significance

The main structure has apparently occupied this location since at least 1960, as it is not depicted on the U.S.G.S. 1960 Sharon 15' topographic quadrangle. The trailer and shed are not depicted on the quadrangle. The complex is poorly maintained and in a fairly delapidated condition. It lacks significant architectural features and is not eligible for inclusion on the National Register of Historic Places.

NLU-82-15

Physical Setting

The site is located on a gently sloping upland ridge surface at an elevation of approximately 345 feet above mean sea level (U.S.G.S. 1960 Sharon 15' topographic quadrangle). It is within a pasture containing small stands of pine trees. The area is currently used for cattle grazing.

Survey Methodology and Observations

The site was recorded during the present reconnaissance. It consists of a possible section of a water well drilling rig. The top plate was embossed: "GOLDENS'S NEW MODEL NO. 2 Patented Sept. 12, 1905, Jan. 9, 1906." No associated material was located in the surrounding pasture.

Significance

It is not believed that this apparatus will yield significant information concerning the project area. Therefore, it is not considered eligible for inclusion on the National Register of Historic Places.

NLU-82-17

Physical Setting

The site is located in a dirt road and adjacent plowed field on an upland ridge surface at an elevation of approximately 330 feet above mean sea level

(U.S.G.S. 1960 Sharon 15' topographic quadrangle). The area north of the site consists of International Paper Company pine forest and the area to its south consists of recently plowed fields. Scrub vegetation and very small hardwoods parallel the road, immediately north of the plowed field.

Survey Methodology and Observations

This site was recorded during the present reconnaissance. It consists of a surface scatter of white, clear, and blue glass; whiteware and two old leather shoes covering an area approximately 250 x 20 feet and oriented east-west in the dirt road. As no diagnostic material was located, no collection was made. Hog and barbed wire and domestic flowers were observed at the base of a large tree on the south edge of the road in the site area.

Two shovel tests were excavated approximately 15 meters south of the dirt road and in the plowed field. No cultural remains were recovered from these tests. The vertical profile revealed by the road cut was shovel cleaned, revealing no cultural remains or other features.

Discussion and Significance

The site represents the remains of two structures depicted in this area on the U.S.G.S. 1960 Sharon 15' topographic quadrangle. No structural or foundational remains are present. The observed artifacts suggest a mid-20th century occupation for the site.

The structures have been razed since 1960, and the remaining surface scatter is not likely to yield significant further information regarding the project study area. It is, therefore, considered not eligible for inclusion on the National Register of Historic Places.

NLU-82-18

Discussion

This site, recorded during the present reconnaissance, represents a structure plotted in the northwest quarter of the northwest quarter of the northwest quarter of the northwest quarter in Section 8, T8N, R5E on the U.S.G.S. 1960 Sharon 15' topographic quadrangle. No remains of the structure were located during the present survey due to the dense understory and surface leaf cover in this International Paper Company pine tree farm. It is likely that landscaping and clearing activities associated with tree farming have destroyed all remains of this structure.

Significance

As no cultural remains were found at this location, the site is not considered eligible for inclusion on the National Register of Historic Places.

NLU-82-19

Discussion

This site, recorded during the present reconnaissance, represents a structure plotted in the southeast quarter of the northeast quarter of the southeast quarter of Section 13, T8N, R4E on the U.S.G.S. 1960 Sharon 15' topographic quadrangle. No remains of the structure were located during the present survey due to dense secondary scrub vegetation in the area.

Significance

As no cultural remains were found at this location, the site is not considered eligible for inclusion on the National Register of Historic Places.

APPENDIX A

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APPENDIX B

RECORDED CULTURAL RESOURCES WITHIN THE PROJECT
AREA IN THE VICINITY OF JACKSON

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APPENDIX B

RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA IN THE VICINITY OF JACKSON

HINDS COUNTY

22Hi512 (Wills Site)

Physical Setting

This previously recorded site (Figure B-1) was located on a small ridge or eroded terrace remnant overlooking the floodplain of the Pearl River (located 550 meters east of the site) at an elevation of approximately 265 feet above mean sea level (U.S.G.S. 1963 Jackson 7.5' topographic quadrangle). It was surrounded to the east, southeast, and south by low-lying swamps characterized by abandoned Pearl River channel courses and ridge and swale topography.

Previous Investigations

According to Mississippi Department of Archives and History records, this site was recorded as Hi14 during the Pearl River Reservoir Survey in 1958. When first recorded, the site covered an area of approximately 30 meters (98.4 feet) by 100 meters (328 feet). Artifacts from six test pits revealed a cultural sequence from Poverty Point through Plaquemine times (Rands 1958:2-3).

The site was revisited by Robert L. Rands and William T. Sanders (Rands 1959). Additional excavations confirmed the sequence noted earlier and it was hypothesized that the cultural affiliations of this site may have been especially strong to the east, rather than the closely adjacent alluvial valley of the Mississippi (Ibid:4-5).

In 1969, a surface inspection of 22Hi512 was made by Sam McGahey (1982: personal communication). He observed that the site had been reduced to an area of approximately three meters (10 feet) by 3.7 meters (12 feet).

Survey Methodology and Observations

During the present reconnaissance, an area of approximately seven acres around the recorded site location, as designated by the Mississippi Department of Archives and History, was surveyed by three persons. Comparison of the 1963 and 1980 U.S.G.S. Jackson 7.5' topographic quadrangles indicated that the area had been subjected to considerable land modification. An artificially filled and contoured area, measuring 400 x 250 meters (1300 x 820 feet), has been built in and on the site area to allow for construction of an office building complex. The depression with standing water depicted on the 1980 Jackson topographic quadrangle in the southwest lot corner had been filled at the time of the present survey. Specifically, the construction of the western end of Dunbarton Road, a doctors office building at 1900 Dunbarton, the asphalt parking lot immediately south of the office, and the apartment complex immediately north of the doctor's office (Figure B-1), have either completely destroyed or deeply buried all remaining cultural material. The office at 1900 Dunbarton is not depicted on the U.S.G.S. 1980 Jackson 7.5' topographic quadrangle and was presumably constructed post-1980.

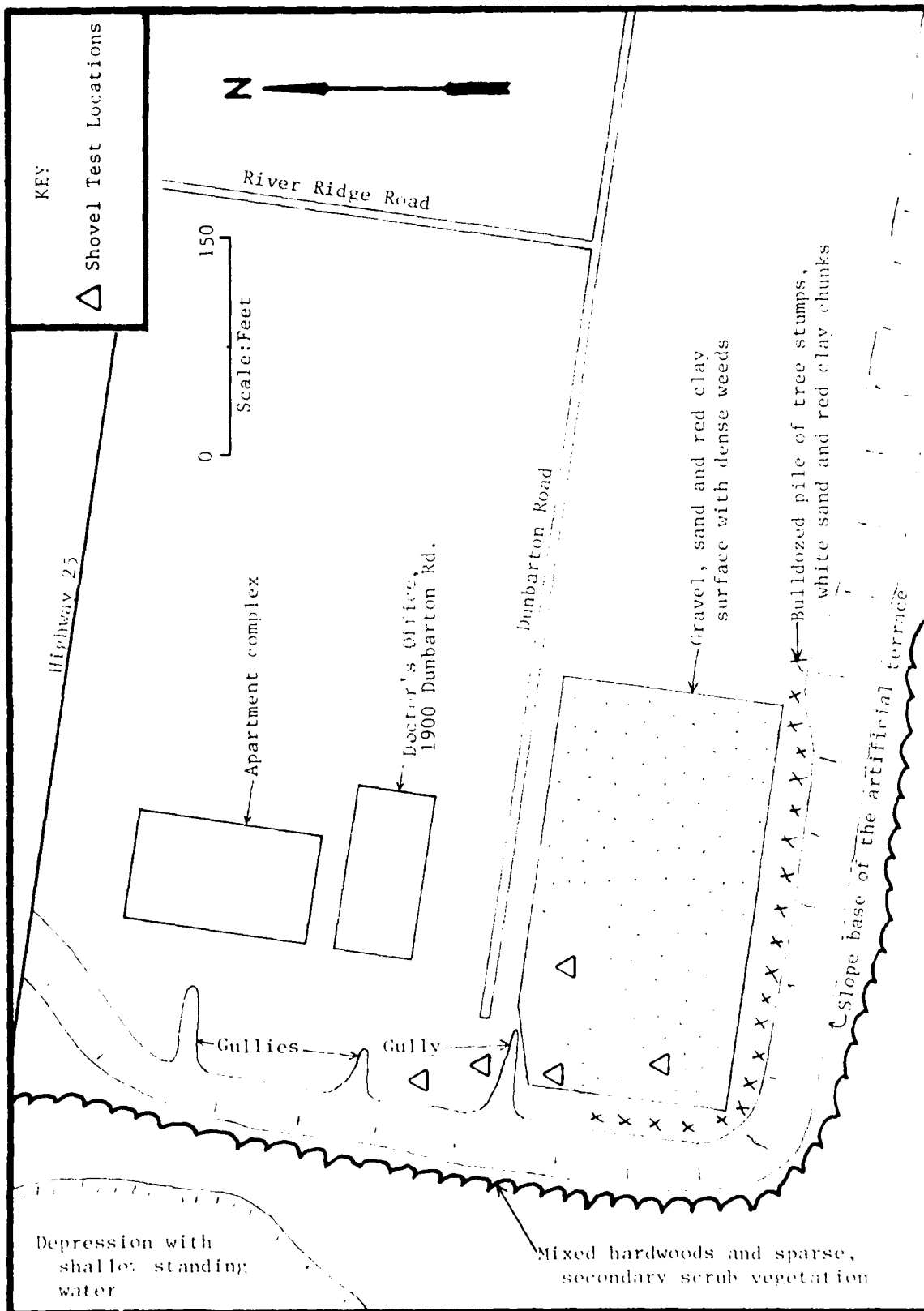


Figure B-1. Sketch map of location of site 22Hi512.

The surface of the area which had not been built on, contained a large amount of small gravel, white sand and red clay. Linear, bulldozed piles of sand and red clay are present on the south edge of the lot on which the site is plotted. Below the elevated lot surface on the terraced slope, a large number of tree stumps, recent trash and old office furniture including chairs, adding machines and file cabinets were observed.

The profiles of three very deep gullies cutting into the western edge of the apparent fill material were shovel cleaned, revealing mottled brownish-yellow (10YR6/6) and white (10YR8/1) clays to depths exceeding two meters. No cultural remains were located. Five shovel tests in the site area revealed a matrix of tan sand intermixed with small red brick fragments, pieces of concrete and mortar, wood particles, pieces of plastic sheeting, and reddish-orange, gray-and-white mottled clays. This indicates the area has been landscaped and artificially filled. The area west of an apartment complex and doctor's office was not shovel tested as it was planted in Saint Augustine grass and ornamental shrubs.

Significance

Given the nature and extent of impact to the site and the absence of prehistoric cultural material, it is presumed that the site has been completely destroyed or deeply buried. It appears unlikely that undisturbed cultural remains would be present. The site is, therefore, considered not eligible for inclusion on the National Register of Historic Places.

22H1549 (Dead Cat Site)

Physical Setting

This site (Figure B-2) is located on the end of a small ridge extending into the floodplain of Lynch Creek. Elevation is approximately 280 feet above mean sea level (U.S.G.S. 1963 Jackson 7.5' topographic quadrangle, photorevised 1971). The site is situated about 15 feet above the level of Lynch Creek. Soils belong to the Siwell series (U.S.D.A.-S.C.S. 1979: Sheet 34) and vegetation consists of low brush (scrub, briar and vine) and a few scattered hardwoods and pine. A jeep trail through the site is vegetated with tall grasses.

Previous Investigations

Prior to the present study, this site was designated by an open circle on the U.S.G.S. 1980 Jackson 7.5' topographic quadrangle at the Mississippi Department of Archives and History as a potential site location. This area was visited during the present study and confirmed as a prehistoric site dating to the Archaic era.

Survey Methodology and Observations

The site was recorded during the present reconnaissance as a result of shovel testing. When cultural remains were recovered from the first shovel test, Test 1, an additional eighteen tests were excavated (Figure B-2). Artifacts were recovered from seven of these (Table B-1), revealing the site

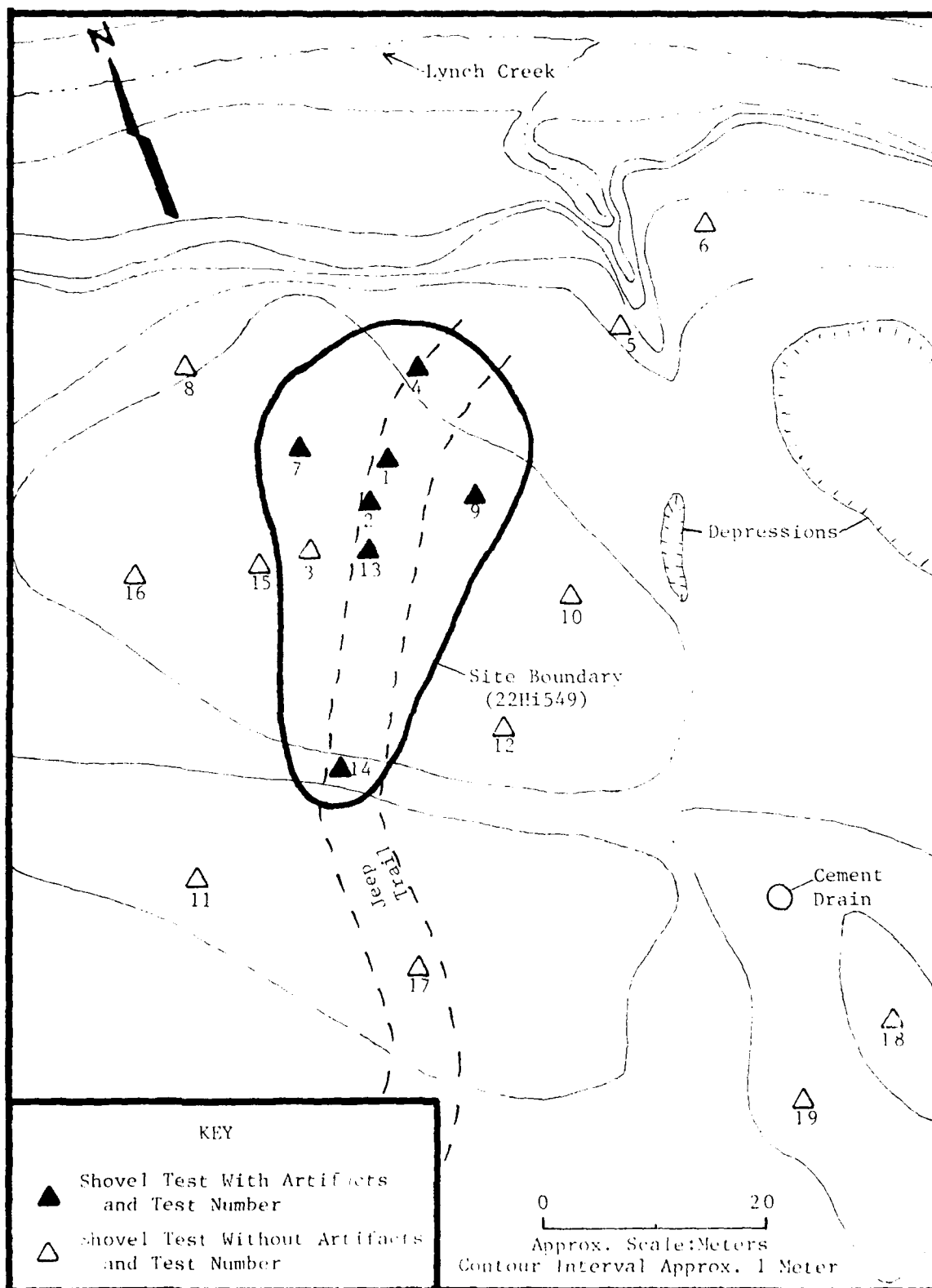


Figure B-2. Sketch map of location of site 22Hi549.

to cover an area of 40 x 20 meters, oriented north-south. Testing indicated artifacts to be confined to between 3 and 15 centimeters below the surface.

A representative shovel test profile revealed: 0-5 centimeters, dark brown (10YR4/3) clayey loam; 5-15 centimeters, brown (10YR5/3) clayey loam; 15-40 centimeters, brown (10YR5/3) silty clay loam with gray mottling. Numerous medium-sized chert gravels were present between 3 to 10 centimeters below the surface in shovel tests 1, 2, 3, 14 and 15.

Several deep gullies extending south from Lynch Creek were observed. Their profiles, some extending to depths of over 3 meters, were shovel cleaned in an attempt to locate buried cultural remains or features, neither of which was observed. The profile revealed basically a homogenous, dark brown (10YR4/3) clay loam.

No surficial cultural remains were located due to the thick leaf cover and very dense scrub vegetation. Except for a north-south trending jeep trail which bisects the site, its surface appears undisturbed. Some recent trash dumping, including beer and pop bottles, miscellaneous aluminum cans, paper cartons and containers, has occurred.

Artifacts

Artifacts were found in seven of 19 shovel tests. They are listed in Table B-1 and described below.

TABLE B-1

ARTIFACTS FROM 22H1549

| DESCRIPTION | SHOVEL TEST NUMBER | | | | | | |
|-------------------------|--------------------|---|---|---|---|----|----|
| | 1 | 2 | 4 | 7 | 9 | 13 | 14 |
| <u>Lithic</u> | | | | | | | |
| Dart Point fragment | 1 | - | 1 | - | - | - | - |
| Roughout | - | 1 | - | - | - | - | - |
| Secondary flakes | 5 | 1 | - | - | 2 | 1 | - |
| Interior flakes | 1 | 1 | - | - | 1 | - | - |
| Chips | - | - | - | 2 | - | - | 1 |
| Split/fractured gravels | 5 | - | - | - | 1 | - | 5 |
| <u>Faunal</u> | | | | | | | |
| Bone | - | - | - | - | 1 | - | - |

The dart point fragment from Test 1 (Figure B-3) consists of a basal half. It has a straight base and parallel stem edges. It is made of a highly crystalline tan quartzite and retains cortex on approximately 75% of its ventral surface. The fragmentary, unfinished condition of the dart precludes identification with established types. The dart point fragment from Test 4 (Figure B-4) consists of a stem, two-thirds of a base, and 1 shoulder. The specimen, of a highly crystalline, grayish-pink quartzite, is too fragmentary to be positively identified with established types.

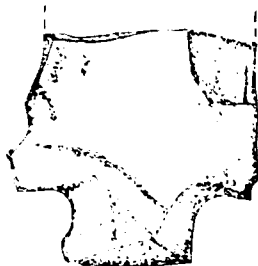


Figure B-3.

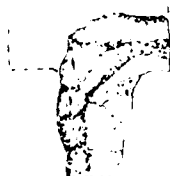


Figure B-4.



Figure B-5.

The roughout from Test 2 (Figure B-5) consists of a dark red and tan quartzite gravel. It is plano-convex in outline. The removal of at least four primary thinning flakes has left about 50% of its cortex on the dorsal surface.

The secondary flakes, interior flakes, and the chips are of locally available chert and quartzite stream gravels. No exotic material was recovered.

Two fractured brown chert gravels and three grayish-red fractured quartzite gravels were recovered from Test 1. The three quartzite specimens have very rough, irregular cleavage surfaces and one is gray on its exterior and two of the three exhibit light-gray-to-white interior discolorations. These have possibly been thermally altered. The two chert specimens have very smooth cleavage surfaces, indicating fracture by percussion only.

The split gravel from Test 9 exhibits five potlid scars, suggesting thermal alteration. The fractured gravels from Test 14 are of grayish-red quartzite and have very rough, irregular cleavage surfaces. All are very dull in color, lacking a lustrous finish. This discoloration and the presence of potlid scars on three of the specimens suggests thermal alteration.

The bone from Test 9 consists of the right half of a pelvic girdle (ischium) from a small mammal. It is well preserved and presumed to be of very recent origin.

Discussion

The site, covering an area of 40 x 20 meters, consists of a very sparse subsurface lithic scatter. The site is very shallow, no artifacts being located below 15 centimeters of the surface. Based on the absence of ceramics and the sparsity and nature of the recovered artifacts, the site can be tentatively date to the Archaic era. It is, however, also likely that the area was utilized during Post-Archaic times, although no evidence of such was located. The site probably functioned as a small, seasonally-occupied hunting camp.

Significance

Shovel testing at the site failed to locate any in situ cultural features. Further, the shallow topsoil suggests extensive erosion. Thus, the integrity of the site must be seriously questioned. Judging from the artifacts and information retrieved, it is thought that additional research will not yield significant further information regarding the prehistoric occupation and utilization of this portion of the Pearl River Basin. Thus, the site is considered not eligible for inclusion on the National Register of Historic Places.

22H1562 (Railroad Site)

Physical Setting

This site (Figure B-6) is located on the east (or north) bank of an unnamed tributary of the Pearl River, located 650 meters southeast of the site, at an elevation of 245-250 feet above mean sea level (U.S.G.S. 1963 Jackson 7.5' topographic quadrangle, Photorevised 1971). The Gulf, Mobile and Ohio Railroad runs northeast-southwest 45 meters east of the site. The area is vegetated with small hardwoods and a sparse understory of scrub.

Previous Investigations

According to Mississippi Department of Archives and History records, this site was recorded by Mike Taylor (date not given). It is located at an elevation of approximately 250 feet above mean sea level. When visited by Taylor and C. G. Dale, it was covered with trees and grass and had been disturbed through bulldozing. Artifacts reported from this site include prehistoric ceramics and unidentified lithics.

Survey Methodology and Observations

The area of this previously recorded site was visited on February 18, 1982, during the present reconnaissance. Approximately 45 centimeters of standing water was present on the site area due to flooding of the stream located immediately south of the site. Floodwater extended from the stream to approximately the 255 foot contour.

One small, unflooded area in the general vicinity of the site was observed. Its surface was covered with a thick layer of hardwood leaves and no surficial cultural remains were located. Three shovel tests were excavated in this area to a depth of 40 centimeters below the surface. No cultural remains were located. The test profiles revealed: 0-4 centimeters, dark grayish-brown (10YR4/2) clay; 4-40 centimeters, grayish-brown (10YR5/2) clay with dark brown (10YR3/3) clay mottling. Very hard, roughly-circular chunks of very dark brown (10YR2/2) clay, measuring about 1.5 centimeters in diameter, were present on the surface and within the upper 3 centimeters of the shovel tests.

Another small, unflooded area located 75 meters northeast of the site was observed (Figure B-6). Three additional shovel tests were excavated in this area, revealing soil profiles similar to those described above. No cultural remains were located.

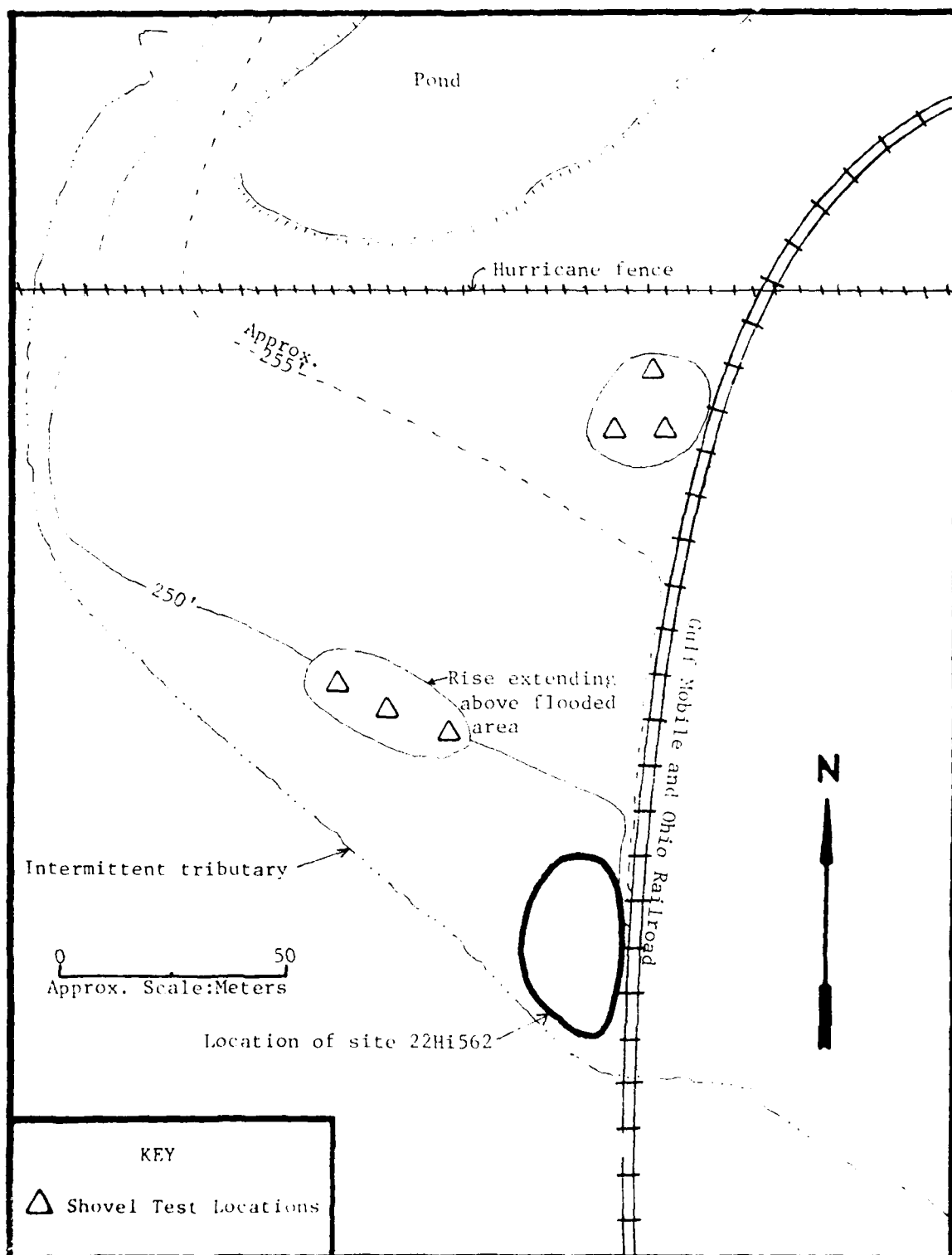


Figure B-6. Sketch map of location of site 22Hi562.

Discussion and Significance

The site could not be relocated or evaluated during the present reconnaissance due to flooding. Further investigation is necessary before a determination of eligibility for inclusion on the National Register of Historic Places can be made.

NLU-82-4

Physical Setting

The structure is located on a ridge overlooking an abandoned channel course (oxbow lake) of the Pearl River at an elevation of 270 feet above mean sea level (U.S.G.S. 1963 Madison 7.5' topographic quadrangle, Photorevised 1971). Soils belong to the Cascilla-Chenneby association (U.S.D.A.-S.C.S. 1979:Sheet 19). Vegetation in the site area consists of mixed bottomland hardwoods and switchcane. It is a camp within the Mule Jail Hunting Club.

Survey Methodology and Observations

This site was located during the present reconnaissance. It consists of a rectangular, wood frame, two-story home. The gable roof is covered with corrugated tin. The long sides, the front and rear, are sided with vertical redwood planks. The ends are of redwood board and batten. Slanting redwood beams support an overhanging roof on the front. The structure is raised about three feet above the general ground level on an earth foundation which is faced with irregular-shaped cement slabs.

A collapsed shed, constructed of 4 x 8 inch horizontal plank siding and a corrugated, tin-covered roof, is located approximately 60 meters northeast of the house. Material in and surrounding the shed includes a large pile of railroad cross ties, roofing tin, old lawn chairs, a 55-gallon barrel, old bargeque grill, fiberglass canoe and scrap lumber. A small well pump house is located about 15 meters south of the house.

Three shovel tests excavated south of the house, and within the ridge above the 270 foot contour level, revealed no cultural remains. Test profiles revealed: 0-15 centimeters, very dark, grayish-brown (10YR3/2) clay; 15-45 centimeters, dark, yellowish-brown (10YR4/6) sand. The profile and the unconsolidated nature of the fill indicates a very recent alluvial origin of the soil deposits in the site area.

Discussion and Significance

The house was constructed about 1960 (John Batte, President of Mule Jail Hunting Club, May 3, 1982:personal communication). Due to its age and lack of significant architectural features the site is not eligible for inclusion on the National Register of Historic Places.

NLU-82-5

Physical Setting

The structure is located on a ridge overlooking an abandoned channel course (oxbow lake) of the Pearl River at an elevation of approximately 270 feet above mean sea level (U.S.G.S. 1963 Madison 7.5' topographic quadrangle, Photorevised 1971). Soils belong to the Cascilla-Chenneby association (U.S.D.A.-S.C.S. 1979:Sheet 19). Vegetation consists of small hardwoods and tall weeds. This was a camp within the Mule Jail Hunting Club.

Survey Methodology and Observations

This site was located during the present reconnaissance. It consists of the location of a burned house. Two standing red brick (machine made) chimneys on either end of a concrete slab mark the location of the structure. Upper and lower fire boxes on the chimney indicate it had two stories. Material around and on the slab includes melted glass, twisted and highly oxidized metal pieces, and an air conditioner. The house was wired for electricity.

A structure, located about eight meters north of the concrete slab, is constructed of vertical 2 x 4 inch frame covered with screen. It has a gable roof covered with asphalt shingles, and rests on a concrete slab. A long table, chairs, stools and a large brick barbeque pit inside the structure suggest it once served as a recreational cooking and dining area. The enclosure is in fair condition.

A highly delapidated, unenclosed shed is located about 15 meters northeast of the possible dining area. It is rectangular and constructed of vertical 4 x 4 inch supports. The tin covered roof is slightly slanted.

Three shovel tests were excavated at approximately the 275 foot contour in the site area. Testing revealed a homogenous, unconsolidated dark brown (10YR3/3) clayey loam to 45 centimeters below the surface. No cultural remains were located.

Discussion and Significance

The house was built in the early 1930's and burned circa 1976 (John Batte, President of Mule Jail Hunting Club, May 3, 1982:personal communication).

The structure has been burned. The remaining slab and chimneys are not eligible for the National Register of Historic Places. The associated shed and dining area lack significant architectural detail and are not eligible for inclusion on the National Register of Historic Places.

NLU-82-6

Physical Setting

The structure is located on a ridge overlooking an abandoned channel course (oxbow lake) of the Pearl River at an elevation of 270 feet above mean

sea level (U.S.G.S. 1963 Madison 7.5' topographic quadrangle, Photorevised 1971). Soils belong to the Cascilla-Chenneby association (U.S.D.A.-S.C.S. 1979:Sheet 19). Except for a few medium-sized hardwoods, the area around the structure has been cleared. This is a camp within the Mule Jail Hunting Club.

Survey Methodology and Observations

This site was located during the present reconnaissance. It consists of a rectangular wood frame house raised approximately 10 feet on round wood poles. The gable roof is covered with corrugated tin and is sided with narrow vertical planking. The south front is a screened-in porch. There are no associated outbuildings. The house is well maintained and in good condition.

Three shovel tests, located north and east of the house and on the 270 foot contour, revealed no cultural remains. Test soil profiles revealed: 0-3 centimeters, brown (10YR4/3) clay; 3-30 centimeters, dark brown (10YR3/3) sandy clay with mottling of gray-brown clay.

Discussion and Significance

The house was constructed in 1980 or 1981 (John Batte, President of Mule Jail Hunting Club, May 3, 1982:personal communication). Due to its recent age the structure is not eligible for inclusion on the National Register of Historic Places.

NLU-82-7

Physical Setting

The structure is located on a linear ridge 30 meters (100 feet) west of and overlooking an abandoned channel course (oxbow lake) of Pearl River. Site elevation is 270 feet above mean sea level (U.S.G.S. 1963 Madison 7.5' topographic quadrangle, Photorevised 1971) and soils belong to the Cascilla-Chenneby association (U.S.D.A.-S.C.S. 1979:Sheet 19). Vegetation around the structure includes a few medium-size hardwoods. This is a camp within the Mule Jail Hunting Club.

Survey Methodology and Observations

This structure was located during the present reconnaissance. It consists of an "L" shaped, wood frame house raised about 10 feet above the general ground level on square and round wood poles. It has a gable roof covered with asphalt shingles and asbestos sheet siding. A small, screened-in porch is present on the northeast end. The area below the "L" has been screened in and is used for storage. There are no associated outbuildings. The house is well maintained and in fair condition.

Three shovel tests in the site area, on or above the 270 foot contour, were excavated. No cultural remains were located. Test soil profiles revealed: 0-5 centimeters, brownish-yellow (10YR6/6) unconsolidated sand; 5-30 centimeters, dark yellowish-brown (10YR3/4) silty clay.

Discussion and Significance

The main structure was built in the early 1920's. The "L" was added about 1950 (John Batte, President of Mule Jail Hunting Club, May 3, 1982:personal communication).

Although the structure meets the age criteria for the National Register of Historic Places, it is neither architecturally significant nor does it have historic significance. It is not considered eligible for inclusion on the National Register of Historic Places.

Highway 25 Bridge

The bridge, which crosses the Pearl River in Hinds and Rankin Counties in Section T6N, R2E, was assessed by Gibbens and Nielsen (1981). It is a modern concrete structure, possessing no unique architectural elements. No other information is given. The bridge was not assessed during the present reconnaissance.

This site is too recent to be considered eligible for inclusion on the National Register of Historic Places.

Illinois Central Gulf Railroad Bridge

The bridge, which crosses the Pearl River at River Mile 290.6, in Hinds and Rankin Counties in Section 36, T6N, R1E, was assessed by Gibbens and Nielsen (Ibid). It is a 190 foot Warren Truss assembly with verticals and rests upon concrete piers. Approaches to the bridge on each bank are wooden trestles. It was built in 1927 by the Virginia Iron and Bridge Company. The bridge was not assessed during the present reconnaissance.

Because it is not known how many of these bridges remain in Mississippi, this site must be considered potentially eligible for inclusion on the National Register of Historic Places.

Old Highway 80 Bridge

This bridge, which crosses the Pearl River in Hinds and Rankin Counties in section 15, T5N, R1E, was documented by the Mississippi Department of Archives and History as part of an on-going, statewide bridge survey (Bill Wright 1982: personal communication). This is a concrete arch bridge approximately 240 meters (700 feet) in length. It was constructed in 1925, and the number of spans is not known (MDAH records, Jackson). No other information is given. It was not assessed during the present reconnaissance.

Until more information concerning this site is obtained, it must be considered potentially eligible for inclusion on the National Register of Historic Places.

Jefferson Davis Bridge

This bridge, which crosses the Pearl River in Hinds and Rankin Counties, in Section 10, T5N, R1E, was documented by the Mississippi Department of Archives and History as part of an on-going, statewide bridge survey (Bill Wright 1982:personal communication). This is a concrete bridge with steel trusses and was constructed before 1930 (MDAH records, Jackson). No other information is given. It was not assessed during the present reconnaissance.

Until more information concerning this site is obtained, it must be considered potentially eligible for inclusion on the National Register of Historic Places.

Sanitary Landfill

The Sanitary Landfill was visited during the present reconnaissance. It consists of an area of approximately 1/2 square mile (800 x 800 meters) in which modern refuse has been dumped from the city of Jackson. This area is clear of vegetation and has been disturbed through bulldozing activities. According to Lauro (1982:personal communication), this site was in its zenith during the 1960's.

This site is too disturbed and too recent to be considered eligible for inclusion on the National Register of Historic Places.

RANKIN COUNTY

22Ra502 (Flowood Site #1)

Physical Setting

The site (Figure B-7) is located on a terrace remnant along the southern bank of Prairie Branch and 600 meters east of its confluence with the Pearl River. Elevation is 270-275 feet above mean sea level (U.S.G.S. 1980 Jackson 15' topographic quadrangle) and soils belong to the Tippo series (Mary Louis Span, Soil Conservation Service, Brandon, Mississippi, February 12, 1982:personal communication). The site area is vegetated in pine forest with a very sparse understory of scrub and vine.

Previous Investigations

This site was recorded as RK2 by Rands (1958). According to Mississippi Department of Archives and History site records, the site consists of two mounds. No additional information is given.

Survey Methodology and Observations

This site was revisited and investigated during the present reconnaissance. Due to a thick cover of pine needles, no surficial cultural remains were noted beyond the dirt roads located west and north of the mound complex. Six orangish-tan interior chert flakes were observed on the road surfaces. They were not collected. No ceramics or other remains were located.

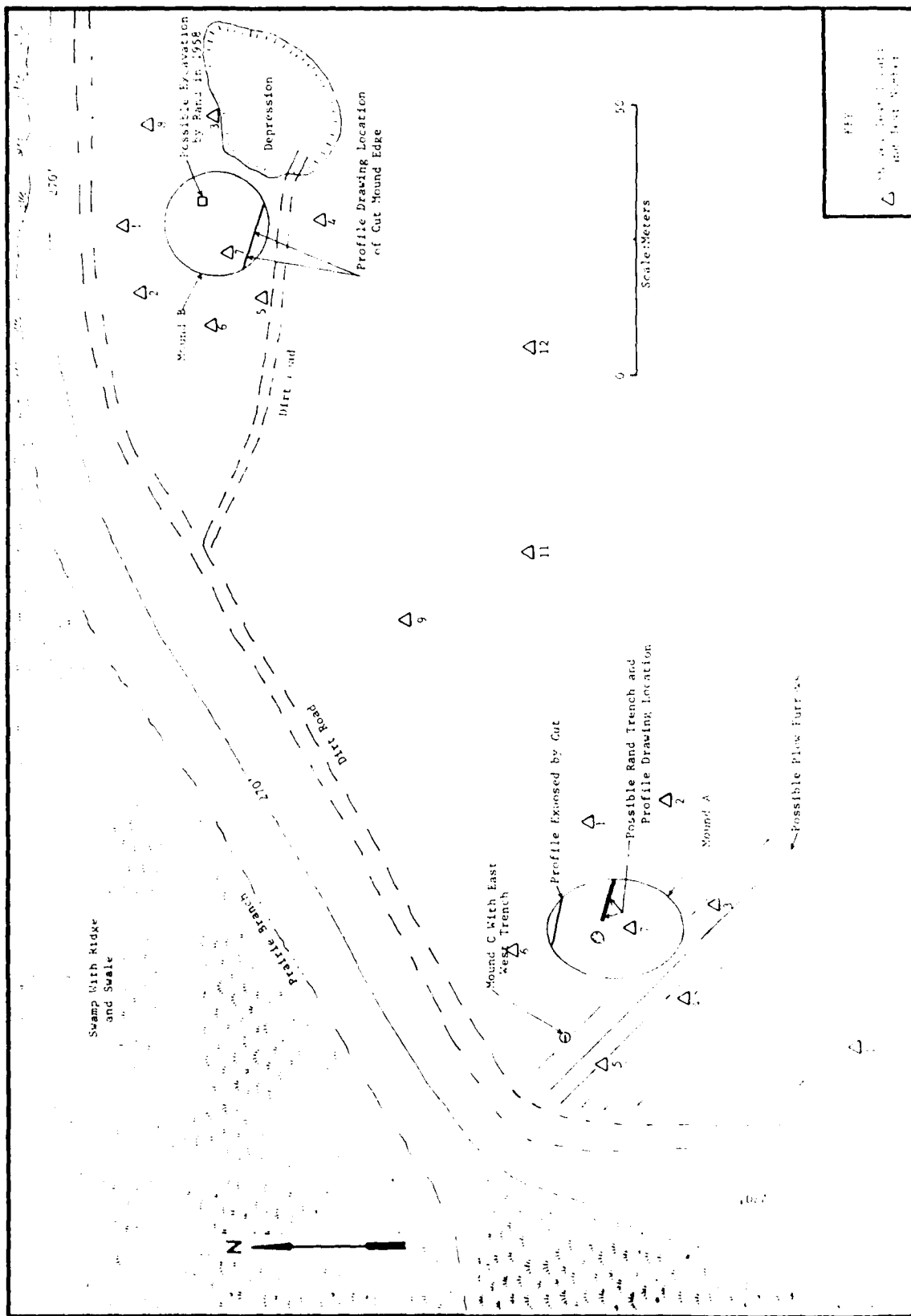


Figure B-7. Sketch map of location of site 22Ra502

Investigation at the mounds included surface reconnaissance, shovel testing, and probing with a stainless steel rod. All test fill was passed through 1/4 inch mesh screen. The profiles of previous excavations at Mound A and Mound B were drawn and soil smears were collected. An additional mound (Mound C) was also located. All mounds and profiles were photographed.

Mound A

This mound has dimensions of 22 meters north-south, 19.5 meters east-west and approximately 1.75 meters in height. Survey in areas surrounding Mound A revealed no surficial cultural remains beyond the dirt road surface, 10 meters north and about 20 meters west, in the mound area. Linear, parallel dirt rows, possible plow furrows, were observed in areas around Mound A. The furrows are oriented northwest-southeast. None was present on the mound surface.

The mound has been disturbed by previous excavations, possibly by Rands. His report (Rands 1958) does not make mention of the location of his subsurface tests. The very northern edge of the mound has been cut, exposing an approximate 1 meter profile. A trench, oriented northwest-southeast, is present. It extends eight meters from the southeast mound base to the mound center. It is 1.65 meters wide and has a maximum depth of 0.95 meters at its northwest end. A circular depression, measuring 1 meter in diameter and 50 centimeters deep, is located on the northwest upper edge of the mound. It, too, may represent a test excavation by Rands.

Seven shovel tests were excavated within a radius of 20 meters of the mound in an attempt to locate associated village/habitation areas. No cultural remains were located. All tests revealed basically homogenous soil profiles and include: 0-60 centimeters, dark brown (10YR3/3) sandy clay loam. Three additional tests located in the area between Mounds A and B revealed the same. Systematic probing at approximately three meter intervals with a steel rod to depths of about 60 centimeters on the mound surface and within the profiles of existing excavations into the mound did not encounter any resistance which would indicate that buried cultural remains had been located. The rod was frequently inspected for the presence of white material which might indicate that soft, poorly preserved bone associated with a burial had been penetrated. None was observed.

The profile exposed on the north edge of Mound A was trowelled and inspected. No cultural remains, features or evidence of basket loading were observed. The walls of the large trench were trowelled and inspected for cultural remains, features or evidence of basket loading. None was observed. The north profile of the trench was drawn (Figure B-8).

Mound B

This mound is located approximately 150 meters at 60° east of north from Mound A. Its position relative to Mound A was determined by vocal reference as the dense pine forest precluded visual reckoning. It is conical in shape and measures 20 meters in diameter with a height of about 2.2 meters.

Survey in areas surrounding Mound B revealed three interior, tan chert flakes in a dirt road approximately 15 meters west of the mound. These were

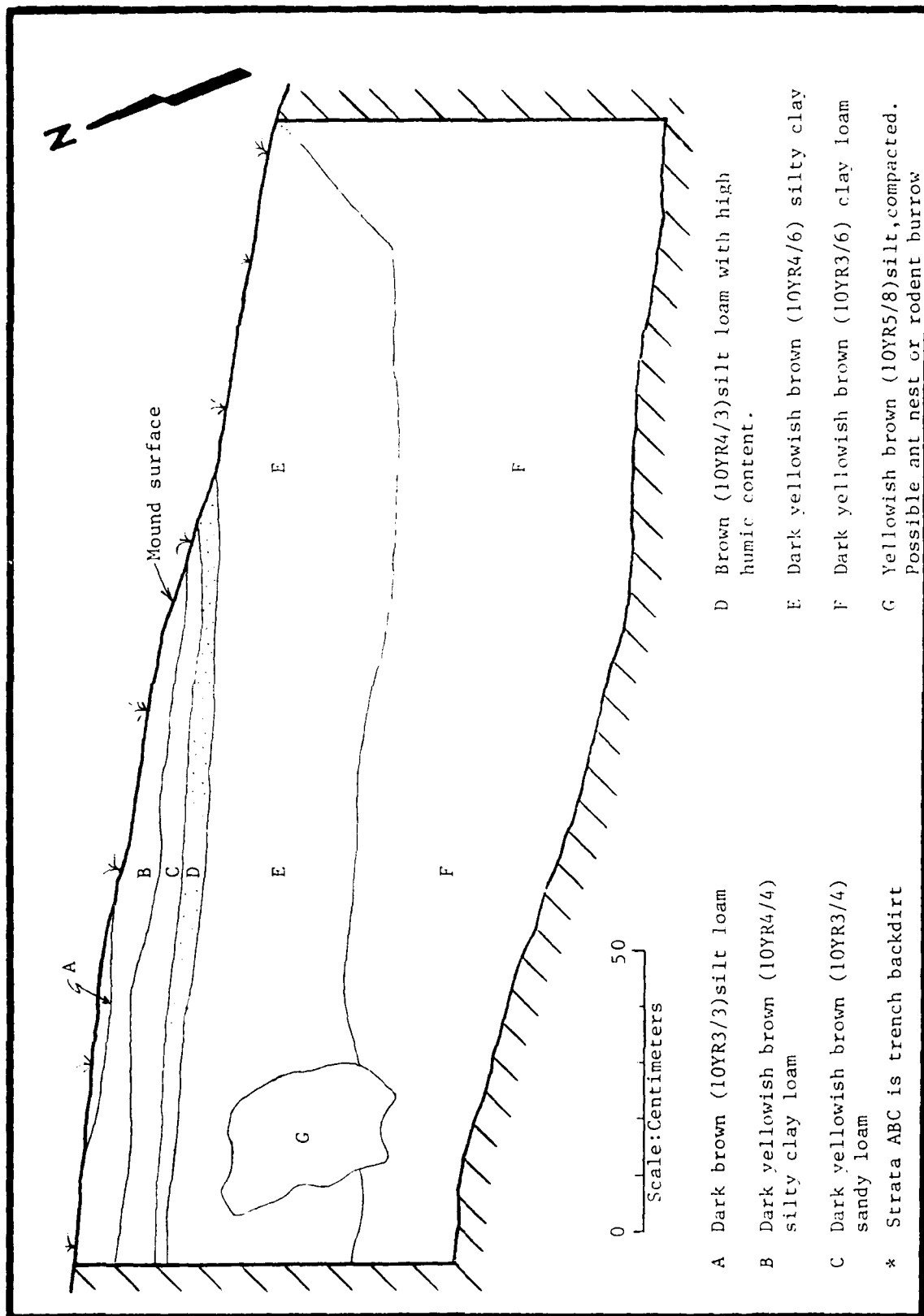


Figure B-8. Site 22Ra502, Profile of north wall of existing trench cut into Mound A.

not collected. A large depression containing standing water was located about five meters east-southeast of the mound. Very shallow standing water was also present on the southern edge of the mound.

The mound has been disturbed by previous excavations, possibly by Rands. A hole, measuring two meters north-south, 2.5 meters east-west, and one meter deep, is present along the northeastern edge of the mound summit. The south-southwestern edge of the mound has been cut, possibly by a road, exposing an approximate 1.5 meter profile.

Eight shovel tests were excavated, both on the mound and within a radius of 35 meters from the mound, in an attempt to locate an associated village or habitation area (Figure B-7). No cultural remains were located. Test fill was very wet and difficult to screen. A representative test profile from areas beyond the mound included: 0-12 centimeters, very dark brown (10YR2/2) sandy loam; 12-15 centimeters, dark brown (10YR3/3) sandy silt loam; 15-65 centimeters, dark yellowish-brown (10YR4/6) sandy loam. Testing on the mound summit revealed a dark brown (10YR3/3) sandy clay loam to a depth of 50 centimeters. Approximately 15 probe rod tests were placed in the mound and within the profiles of the existing hole on the mound summit. These did not encounter any resistance which would indicate that buried cultural remains had been located. The rod was frequently inspected for the presence of white material which might indicate that soft, poorly preserved bone associated with a burial had been penetrated. None was observed.

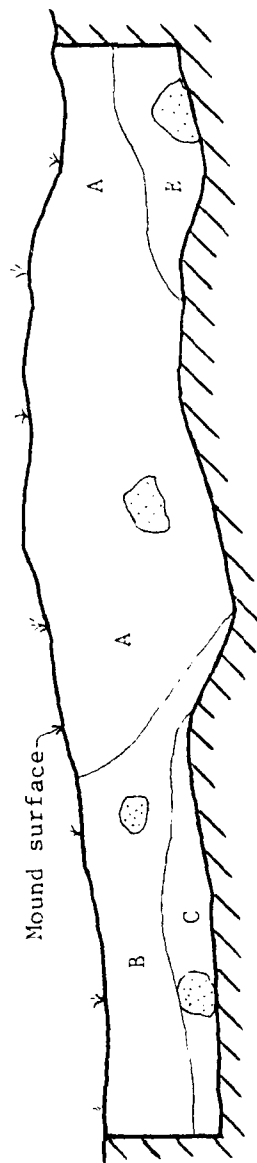
The east profile exposed in the existing excavation hole on the mound summit was trowelled. No cultural remains, features or evidence of basket loading were observed. No natural stratigraphy was observed; all consisted of the same homogenous dark brown (10YR3/3) sandy clay loam as revealed through shovel testing on the mound. This profile was not drawn. The profile exposed by the possible road cut on the south-southwest edge of the mound was trowelled. Screening of approximately 50% of the dirt removed from trowelling recovered one secondary, gray chert flake. It was not collected. The exposed profile was photographed and drawn (Figure B-9).

Mound C

This mound, located 20 meters northwest (305°) of Mound A, is basically circular (Figure B-7). It has a maximum diameter of 1.5 meters and is 50 centimeters tall. One flake was located in the dirt road less than four meters north of the mound. No cultural remains were present on the mound, although a dense pine needle cover severely hampered surface visibility.

A small, east-west trench has almost bisected the mound and may represent test excavation by Rands, although it is unlikely, as he makes mention (and a sketch map) of only two mounds, A and B (Rands 1958).

Shovel cleaning of the trench in Mound C did not reveal any cultural remains, features or evidence of basket loading. The profile revealed a homogenous, dark brown (10YR3/3) sandy loam. No profile drawing was made.



A Dark brown (10YR3/3) sandy clay loam with a few charcoal flecks present

B Yellowish brown (10YR5/4) silty clay. More compact than other levels

C Dark yellowish brown (10YR4/4) sandy loam

⊙ Ant nests or rodent burrows. Very unconsolidated fill within



0 2
Scale: Meters

Figure B-9. Site 22Ra502, Profile of cut along south edge of Mound B.

Discussion

The site consists of a complex of three mounds. Except for one flake recovered at Mound B and flakes observed in the dirt road north and west of the site, no cultural remains were located.

Inspection of the profiles from the three mounds revealed no evidence of basket loading, a possible indication of a prehistoric man-made origin. The rise of layer F in Mound A may represent the bed of an abandoned flood scour channel filled in by subsequent flooding from Prairie Branch or possibly the Pearl River. This, however, does not explain the relief of the mound surface above the level of the surrounding terrain. It may, therefore, represent an erosional remnant resulting from differential stream erosion on the terrace surface.

The Mound B profile is similar to that of Mound A. The dip of layer A, or the rise of layer B, may represent an abandoned stream or flood scour channel which was filled by subsequent flooding from Prairie Branch or the Pearl River. Its elevation above the surrounding flat terrain may have resulted from differential erosion of the terrace surface on which the mound is located.

The proximity of Mound C to the dirt road and the fact that it was not recorded by Rands (1958) suggests it may be the result of road maintenance subsequent to the 1958 initial site recording.

Thus, given the absence of cultural remains or internal features, both historic and prehistoric, and the absence of basket loading in the profiles, it may be assumed that the mounds are natural in origin. However, Rands (1958:2-3) indicates that a paucity of cultural remains may not be atypical of mounds dating to the Woodland or Burial Mound period. One flake was recovered from approximately 1 meter below the surface in trowelling the south edge of Mound B for profile inspection and drawing. Thus, although maybe natural in origin, Mound B has apparently been utilized by prehistoric occupants of the area. The flakes in the dirt road in the general site area are further evidence of this utilization.

Significance

Because of the enigmatic nature of these mounds, further testing, particularly at Mound B, will be required to determine their exact origin and function. Thus, at this time, this site should be considered potentially eligible for inclusion on the National Register of Historic Places.

22Ra508 (Mule Jail Site)

Physical Setting

This site is located 100 meters east of the Pearl River in a very flood-prone area characterized by a ridge and swale topography. Elevation is approximately 260 feet above mean sea level and soils consist of recent alluvial deposits.

Previous Investigations

According to Mississippi Department of Archives and History records, this site was recorded by Rands (1958) during the Pearl River Reservoir Survey of 1958 as RK-9. No other information is given.

Discussion and Significance

The site area was flooded during the present survey and could not be located and evaluated. Further investigation is necessary before a National Register of Historic Places determination of eligibility can be made.

22Ra527 (Interstate Bridge Site)

Physical Setting

The site (Figure B-10) is located on the east bank of the Pearl River, 450 feet south of the southernmost interstate bridge crossing the Pearl River (Mississippi Department of Archives and History: Site Files). It lies at an elevation of 250-253 feet above mean sea level (U.S.G.S. 1980 Jackson 7.5' topographic quadrangle) and soils are recent alluvial sands and silts. The site area has been bulldozed and is void of vegetation, except for some very short grass and scrub to the south, beyond the site location.

Previous Investigations

This site is situated on the east bank of the Pearl River and south of the I-20 bridge. However, the site form is missing from the Mississippi Department of Archives and History records, and information concerning the first recording of the site is not available.

The site was visited by Crusoe and Lauro in 1980, during a cultural resources survey of the I-20 Pearl River overpass (Lauro 1980). According to Lauro (Ibid), prior to construction of I-20, "the site apparently consisted of a small burial mound, a village, and perhaps a fish weir." However, Lauro (Ibid) later states that "all traces of the mound have been obliterated by construction activities." There is no information available describing the alleged mound at this site.

When visited in 1980, the village area of the site was less than 4 to 5 inches thick and extended 15 to 19 paces (37.5 to 47.5 feet). Several Baytown sherds and one cord-marked sherd were recovered. Evidence of a possible fish weir consisted of a single pole set in the ground at an angle toward the river (Ibid 1980). It is not mentioned by Lauro if subsurface testing was conducted.

Survey Methodology and Observations

This previously recorded site was visited during the present reconnaissance. An area extending 1000 feet north-south and 500 feet east-west and south of I-20/55 was intensively surveyed in an attempt to relocate the site. The area has been extensively landscaped, bulldozed, and levelled. The U.S.G.S. 1980 Jackson 7.5' topographic quadrangle depicts a linear ridge

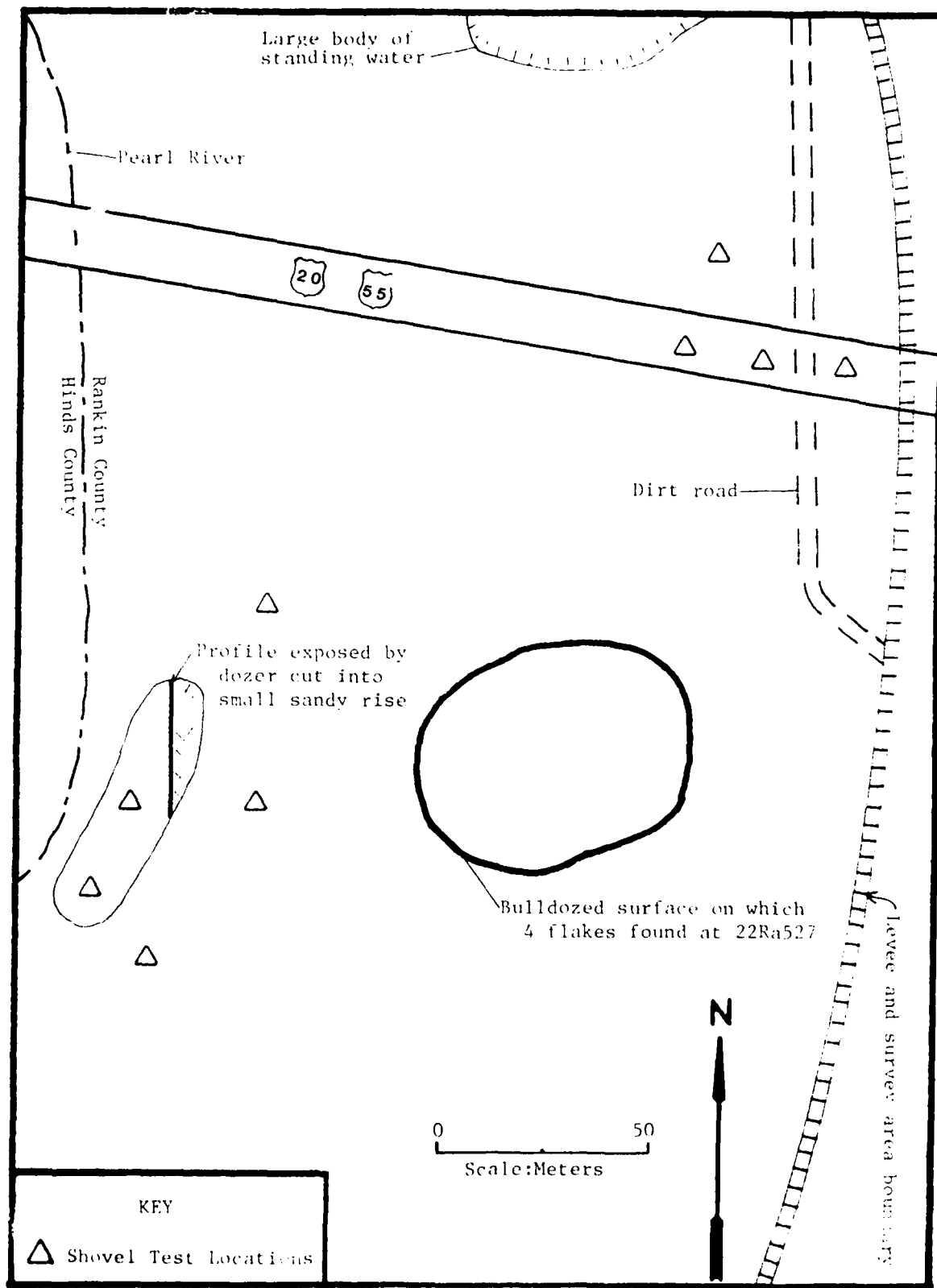


Figure B-10. Sketch map of location of site 22Ra527.

paralleling the east bank of the Pearl River below the I-20/55 overpass. It had been removed or levelled prior to the present survey. Bulldozer-cut profiles were exposed in a small rise located along the upper bank edge of the river and 375 feet south of the I-20/55 bridges, revealing approximately 1 meter of white, recent alluvial sand overlying mottled-gray and light orange, very compacted clayey loams. No cultural remains were located in the profile. The depth of this profile indicates extensive removal of the upper soil deposits during landscaping and bulldozing. Large areas of the surface consisted of gray and orange clayey loams.

Only four tan chert flakes were located in the site area. These were recovered from the bulldozed surface and were not collected. As many gravels were observed on the surface, these flakes can not be positively identified as prehistoric given the amount of vehicular disturbance and traffic on the area. Nine shovel tests were excavated, revealing grayish-brown (10YR3/3) clayey loam to below 40 centimeters of the surface. Soil deposits were highly compacted. No cultural remains were located.

Discussion and Significance

The absence of cultural remains which can be positively identified as prehistoric and the presence of large areas of surficial clayey loams, flanked by 1 meter profiles revealing only recent alluvial white sand, indicates that the soil deposits containing cultural material have been extensively scattered or removed. Further investigation at the site is not likely to yield significant additional information regarding the prehistoric occupation and utilization of the Pearl River Basin. The site has been destroyed and is not eligible for inclusion on the National Register of Historic Places.

22Ra546 (Flowood Site #2)

Physical Setting

The site (Figure B-11) is located on the first terrace overlooking Pearl River to the west at an elevation of approximately 270 feet above mean sea level (U.S.G.S. 1980 Jackson 7.5' topographic quadrangle). Soils are recent alluvial, white sands and vegetation consists of very dense scrub, the result of clear-cutting and bulldozing activities on the site.

Previous Investigations

According to Mississippi Department of Archives and History records, this site, a surface scatter located on the east bank of the Pearl River, north and south of the Highway 25 bridge, was recorded during the Pearl River Reservoir Survey in 1958 as RK-3 (Rands 1958). This site has also been referred to as RA-3. At one time this site and Flowood #1 were both recorded as 22Ra502. It has been assigned a new number, 22Ra546, in order to avoid the confusion which resulted from two sites with the same number.

This site was visited by Gibbens and Nielsen (1981) in November and December of 1981, during a cultural resources survey of proposed flood control areas adjacent to Pearl River. Shell-tempered pottery, two projectile points, and a milling stone were collected from the surface of an old levee north and

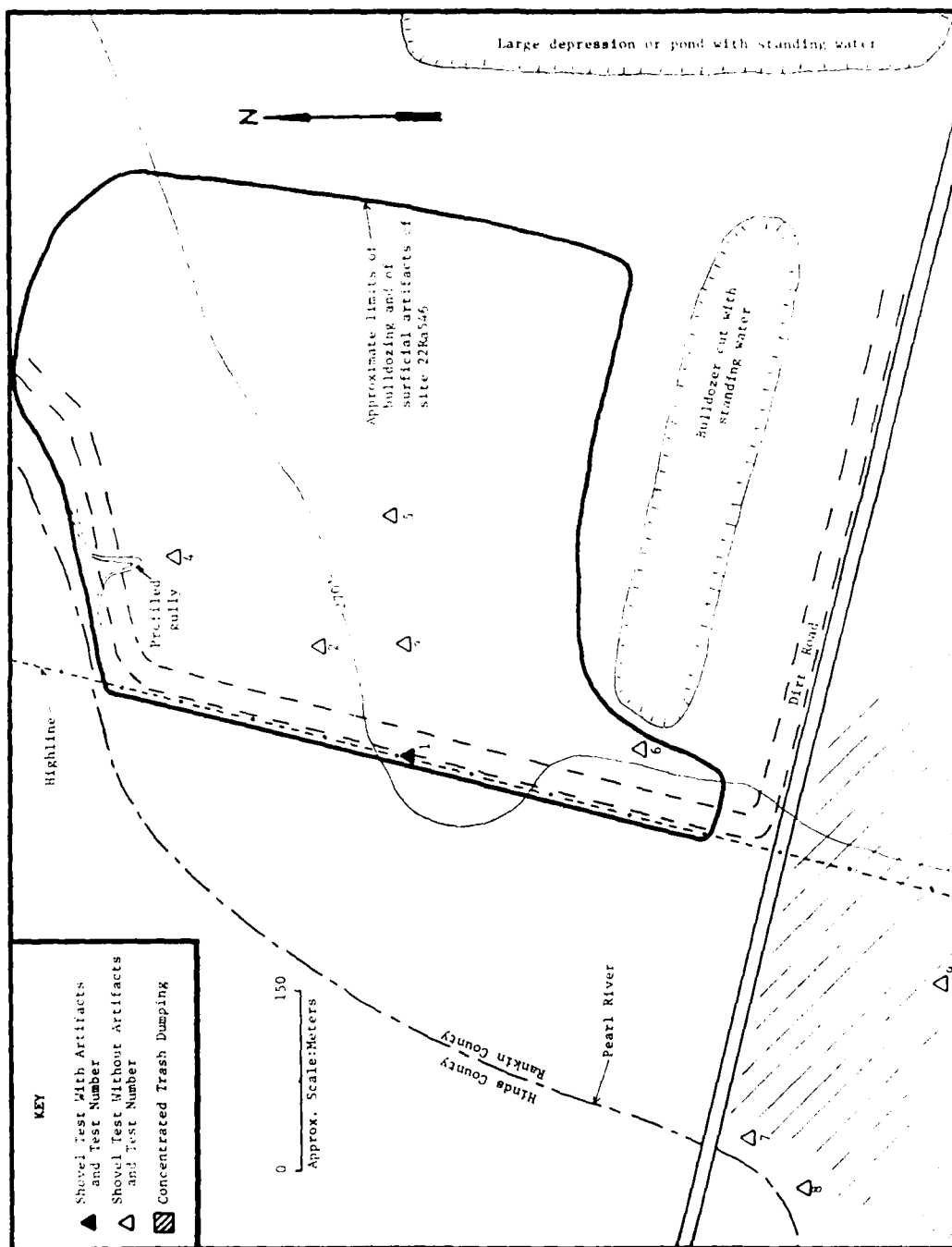


Figure B-11. Sketch map of location of site 22Ra546.

south of the bridge. This area was designated CE1. A lithic scatter was observed on the first river terrace approximately 750 feet from the east bank of the river on the north of Highway 25. This area was designated CE2. Shovel tests revealed that cultural materials were confined to the upper 5-8 centimeters of soil and no midden deposit was visible. The site areas have been extensively disturbed by clearing and grading. It was later discovered that areas CE1 and CE2 conform to the area recorded for site 22Ra546.

Survey Methodology and Observations

This site was revisited and evaluated during the present reconnaissance. The area, extending approximately 800 feet north of Highway 25 and 300 feet east of the highline right-of-way, has been extensively disturbed by bulldozing. It is thickly vegetated with secondary scrub, and large amounts of bulldozed tree trunks and limbs were observed. About 40% of the surface within this area is covered by recent, non-localized trash dumping and overall surface visibility in this area is less than 50 percent. Deep bulldozer cuts located about 150 feet north of Highway 25 and extending east from the highline right-of-way for a distance of at least 500 feet were filled with standing water during the present survey. Large areas of surficial orange clay have been exposed by bulldozing, indicating that the upper soil deposits have been removed or extensively spread and mixed.

The area west of the highline right-of-way within the site area, extending to the upper east bank of the Pearl River, has been highly scoured by recent flooding and is characterized by surfaces of white, recent alluvial sands. Increased erosion and deflation of this area have been caused by the removal, presumably by bulldozing, of much of the surface vegetation cover. No trash dumping has occurred in this area west of the highline right-of-way.

Comparison of the U.S.G.S. 1963 (photorevised in 1971) and 1980 Jackson 7.5' quadrangles revealed two somewhat different landscapes. Since 1963, the area immediately south of the Highway 25 bridge and west of the highline right-of-way has been modified. Three small ridges extending south from a point north of the bridge have been removed according to the 1980 quadrangle, indicating substantial surface modification of the site area in the last 17 years. An area measuring approximately 600 x 600 feet and located south of Highway 25, east of Pearl River and west of the highline right-of-way is currently being used as a trash dump. This is a concentrated, localized area of dumping unlike the scattering of refuse north of Highway 25 and east of the highline. Large piles of unused construction material, including scrap lumber, brick, concrete and mortar pieces, were observed. Domestic dumping is also present and includes miscellaneous household refuse.

Artifacts

Surficial cultural remains observed in the area north of Highway 25 and east of the highline right-of-way were confined to bulldozed areas, particularly in the linear clearing and dirt road following the right-of-way and the eroded slope between the 270 and 260 foot contour, 600 feet north of Highway 25. The same concentration locations were observed during the initial site recording (Dottie Gibbens, February 18, 1982:personal communication). Cultural material was also observed in the central site area on dozer-disturbed surfaces. Artifacts observed include 12 to 15 secondary and

interior chert flakes and four small, undecorated grog tempered body sherds. No modified or retouched lithics were observed and no collection was made.

Cultural remains were located in the area south of Highway 25, east of the Pearl River, during the initial site recording (Dottie Gibbens, February 18, 1982:personal communication). None was located in this area during the present survey due to recent land surface modifications and trash dumping.

Subsurface Investigation

A series of nine shovel tests (Figure A-11) was excavated. Two flakes were recovered from between the surface and 5 centimeters below in Test 1. It is very likely that these were not in situ, given the disturbed nature of the surroundings. The flakes were returned to the test upon backfilling. The remaining seven tests contained no cultural material. Testing indicates very shallow soils overlying clay. A representative test profile included: 0-5 centimeters, very dark grayish-brown (10YR3/2) silty clay; 5-40 centimeters, dark yellowish-brown (10YR4/4) fine silty clay.

The profile of a gully cutting into the dirt road along the northern site edge and the profile of the road cut, located under the highline and 300 feet north of Highway 25, were shovel cleaned and inspected for buried cultural remains or other features. None was located. Only dark, yellowish brown (10YR4/4) clays were observed.

Discussion

The site, measuring approximately 300 x 150 meters and oriented north-south, consists of a highly-disturbed, sparse surface scatter of lithic debitage and four sherds. No modified or retouched lithics were located. The site may be dated to the Post-Archaic period on the basis of the observed ceramics. Their undecorated nature, however, precludes a more specific temporal placement. Although no artifacts diagnostic of the Archaic era were located, it is likely that the area was also utilized by these earlier cultures. Given its proximity to the Pearl River and the associated periodic flooding, the site probably functioned as a seasonally-occupied, small village or hamlet utilized for purposes of riverine resource exploitation, including fishing, hunting and hardwood nut collecting. Its topographic location and the sparsity of cultural remains argue against a permanent occupation locus.

Significance

Bulldozing and trash dumping have highly scattered and impacted the site. Testing and surface observations indicate that much of the upper soil deposits have been removed or relocated. Thus, the integrity of the site must be seriously questioned. The site appears destroyed and it is unlikely that additional investigations will yield significant further information regarding site function or general prehistoric utilization of this portion of the Pearl River Basin. The site is, therefore, considered not eligible for inclusion on the National Register of Historic Places and no further cultural resource investigation is recommended.

Physical Setting

The site (Figure B-12) is located on a bluff or eroded terrace remnant overlooking the Pearl River 15 meters to the north. Site elevation is 270 feet above mean sea level (U.S.G.S. 1963 Jackson 7.5' topographic quadrangle, Photorevised 1971). Soils belong to the Cascilla-Arkabutla association (Mary Louis Span, Soil Conservation Service, Brandon, Mississippi, February 12, 1981; personal communication). Vegetation consists of a few small hardwoods with a fairly dense understory of scrub and briar.

A map in Rands (1958) report has site RK-3 (Flowood-2) plotted in the area of site NLU-82-2. As this site is not described in Rands report or in the Mississippi Department of Archives and History records, it is unknown if site NU-82-2 was previously recorded. However, as Rands recorded no known historic sites, it may be assumed that NLU-82-2 is a previously recorded site.

Survey Methodology and Observations

This site was recorded during the present reconnaissance. It consists of a series of five closely-spaced depressions, A through E (Figure B-12). Dimensions are: depression A (27 x 13 feet), depression B (22 x 13 feet), depression C (20 x 6 feet), depression D (4.5 x 4.5 feet), and depression E (13 x 6 feet). The bottoms of A, B and C are surfaced with cement or mortar. The ground surface edge surrounding depression C is covered with concrete. No evidence of concrete or mortar lining was located in depressions D and E. Inspection of the depression profiles revealed that none was faced.

A linear mounding of dirt, possibly a man-made levee, is present along the east and southeast periphery of the depressions. It is approximately two feet tall and is discontinuous around the area of the depressions. The function of this mounding of dirt is unknown. Given the elevation of the site location and the fact that no remains of the levee were located along the north edge of the depressions, the edge nearest the Pearl River, it is unlikely that it was intended to retard water during periods of flooding.

Surface reconnaissance of the site area and a series of five shovel tests (Figure B-12) did not locate any additional cultural remains. Shovel test profiles revealed: 0-4 centimeters, very dark, grayish-brown (10YR3/2) organically stained silty loam; 4-45 centimeters, dark, grayish-brown (10YR4/2) sandy silt.

Discussion and Significance

The site may represent the remains of fortifications associated with the Union siege of Jackson in 1886. However, further research is required in order to determine the origin, nature and function of the remains before a final determination of eligibility can be made. Therefore, until more information is obtained concerning this site, it must be considered potentially eligible for inclusion on the National Register of Historic Places.

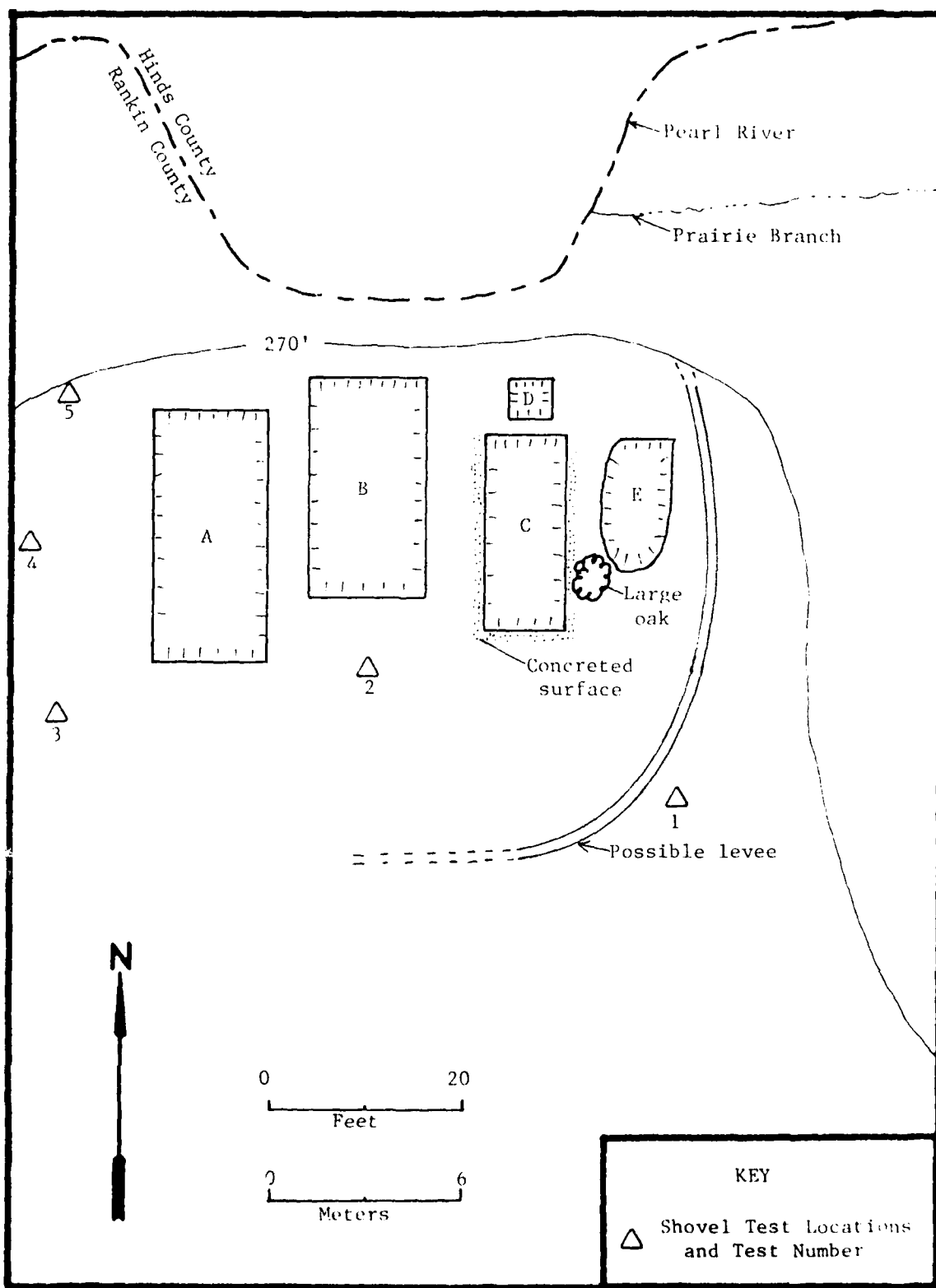


Figure B-12. Sketch of depressions at site NLU-82-2.

NLU-82-16 (Legett Farm Complex)

Physical Setting

This site (Figure B-13) is located within the Pearl River alluvial valley at an elevation of 275 feet above mean sea level (U.S.G.S. 1963 Jackson 7.5' topographic quadrangle, Photorevised 1971 and the 1971 Florence 7.5' topographic quadrangle). Surrounding areas consist of grass pastures. Various ornamental trees, shrubs, and flowers are present in area about the main residence.

Survey Methodology and Observations

The site was visited on February 18, 1982, by Tony Dieste of Heartfield, Price and Greene, Inc., and Dottie Gibbens of the Mobile District Corps of Engineers. The occupants of the complex, the Legett sisters, were interviewed regarding the history of the various structures comprising the complex. This information has been incorporated into the following discussion. All structures within the complex were photographed and described.

The complex (Figure B-13) consists of 13 structures: the main residence, two single-pen houses, a carriage house, two barns, three storage sheds, a wood shed, a chicken house, a cattle pen, and a garage.

Of the thirteen structures, six pre-date 1912 and comprise the "Upland South style farm complex. These consist of the main residence (L), both single-pen houses (A and B), the carriage house (I), a single crib barn (C) and the wood shed (J). A single-pen shed (D) and the chicken house (K) are structurally similar, but construction dates were not available.

The main residence (Figure B-13, L) consists of an Upland South style house with a modified pyramidal hip roof covered with asphalt shingles. It has two interior chimneys. It is raised on round wooden supports and enclosed. It is sided with ship lap and tongue and groove of two different widths. Construction was begun in 1911, and subsequent modifications include the remodeling of the attic into a second story in 1924, and the construction of side and rear screened-in porches. The residence is in excellent condition and very well maintained.

Both single-pen houses (Figure B-13, A and B), are raised about 12 inches on round and square wood piers, have board and batten siding, and corrugated tin roofing. Each has a single exterior chimney at the gable end of the house. A shed room and a shed porch, each half the size of the pen, have been added to the front and rear. They are currently used for storage. Both buildings were built by Mr. Legett, father of the sisters currently occupying the main residence. Both sisters were born in the northernmost single-pen house. The southernmost single-pen served primarily as living quarters for Negro servants. Construction dates for these buildings are unknown. However, they pre-date the construction of the main residence as the northernmost single-pen (B) was relocated about 150 feet north of its original location in 1900, due to construction of the Jackson to Gulfport Railroad. The structures are somewhat dilapidated and in poor condition.

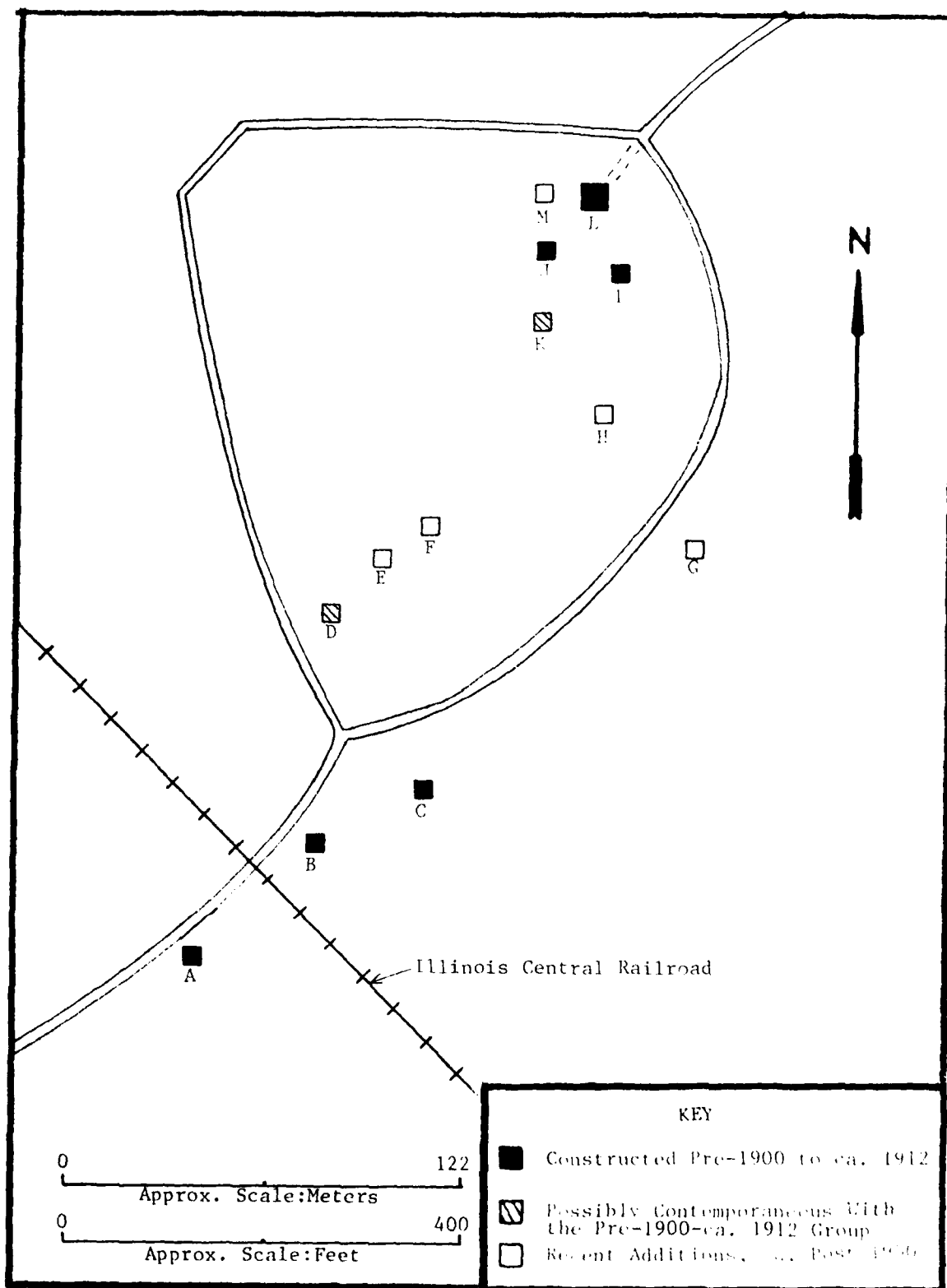


Figure B-13. Site NLU-82-16, the Legett Farm Complex.

The carriage house (Figure B-13, I), located immediately south of the main residence has a hip roof covered with tar shingles and tongue-and-groove siding. Construction was begun on the carriage house in 1911, only slightly later than that of the main residence. Recent exterior modifications include an "L" addition on the southern end and the enclosing of the original carriage entry ways. Interior modifications include the addition of two bedrooms and a kitchen. This structure is in very good condition and is periodically used to accomodate visiting guests and relatives at the farm.

One single crib barn (Figure B-13, C), located north of the northernmost single-pen house (B), has a tin covered gable roof. The crib is enclosed and sided with board and batten. The remainder consists of a long shed extending along the same axis as the pen ridge pole. It is unenclosed and supported by vertical wood poles. It was constructed circa 1912, and is in fair condition. It is currently used for storage purposes. Another, a transverse-crib barn (Figure B-13, F), is rectangular in plan with a central aisle and a hay loft. It is constructed of pole and frame and the ends are faced with corrugated tin. The overhanging roof protects lateral stables and storage, provided by the cribs on either side, from falling rain. This barn is relatively recent in age and is not contemporaneous with the previously described structures.

One shed (Figure B-13, D) is rectangular in plan and constructed of vertical poles and horizontal plank siding raised on wood piers. The gable roof is covered with wood shingles. It is more recent in age than the single-pen houses, but no construction date was available. It has collapsed and is in poor condition. Two sheds (Figure B-13, G & H) are constructed of horizontal and vertical planking and have tin covered gable roofs. Both are single-pens with lean-to's. The pen and lean-to of one (H) are completely enclosed, while the other (G) pen and lean-to are only partially enclosed. They are relatively recent in age.

The wood shed (Figure B-13, J), located immediately southwest of the main structure, has a hip roof covered with uncorrugated tin. Siding is board and batten and the structure is raised on round 8 inch tall wood piers. The shed was constructed shortly after 1911 of wood removed from a cotton gin in the area belonging to the grandfather of the Legett sisters. It is in very good condition.

The chicken house (Figure B-13, K), has a sloping, uncorrugated tin roof with siding of board and batten. It is raised on wooden piers. Its appearance and style suggest it may be contemporaneous with the wood shed but no construction date is available.

The cattle pen (Figure B-13, E) is constructed of horizontal planks. The garage (Figure B-13, M) has a hip roof covered with asphalt shingles and tongue-in-groove siding. It and the cattle pen are recent additions to the farm complex.

Discussion and Significance

Commercial activities once associated with the farm included cattle raising, primarily for dairy purposes. Cheese and milk were prepared for marketing.

Due to periodic flooding in the general area, no small family cemeteries were ever placed within the grounds. Rather, deceased family members are buried in Jackson, Mississippi.

This site meets the age criteria and may represent one of the few remaining Upland South style farm complexes in the area. Therefore, it is considered potentially eligible for inclusion on the National Register of Historic Places.

Standing Structure

This site, an unidentified standing structure, was located and assessed by Gibbens and Nielsen (1981) during a cultural resources survey of the Pearl River near Jackson. No other information is given.

This site is too recent to be considered eligible for inclusion on the National Register of Historic Places.

Concrete Foundation

This site, the concrete foundation of a former standing structure, was located and assessed by Gibbens and Nielsen (1981). No other information is given. It was not visited during the present reconnaissance.

This site is too recent to be considered eligible for inclusion on the National Register of Historic Places.

Highway 25 Bridge

This site was discussed under Hinds County.

Illinois Central Gulf Railroad Bridge

This site was discussed under Hinds County.

Old Highway 80 Bridge

This site was discussed under Hinds County.

Jefferson Davis Bridge

This site was discussed under Hinds County.

APPENDIX

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